

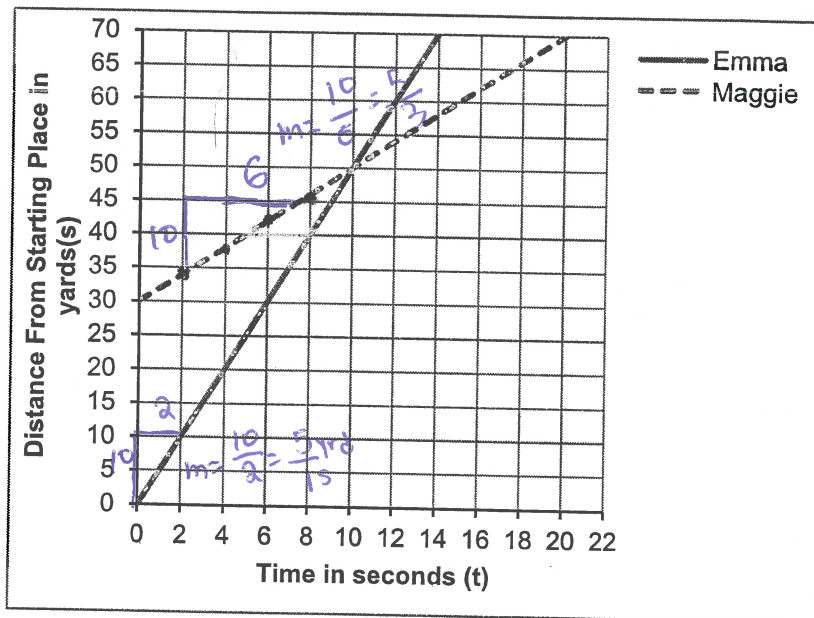
The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.

+		
2		35
0		30
2		35



1. After five seconds, who is running the fastest? Explain your answer.

Emma
~~Maggie~~ is running the fastest because after ~~2~~ seconds she is already ~~at 40 yards~~ running at a rate of 2 seconds ~~per~~ every 10 meters

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

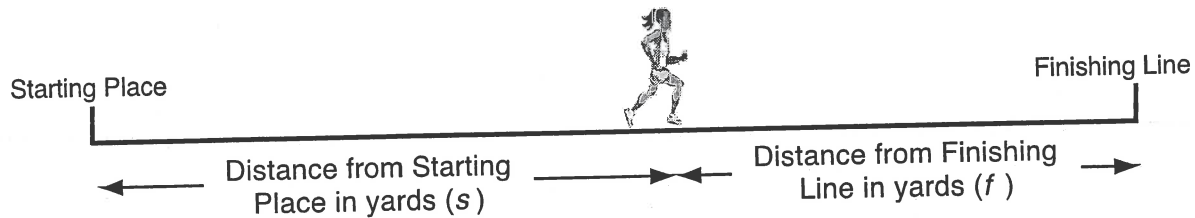
What is the equation that represents Maggie's line?

$$s = 2t + 30$$

3. Describe what happens in the race.

~~Maggie got a head start of 30 yards but Emma won by going 10 yards every 2 seconds. Maggie started at 30 yards while Emma started at the starting line. At 10 seconds, Maggie and Emma cross each other. Emma finishes and wins the race at 12 seconds. Maggie finishes the race at 20 seconds.~~

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



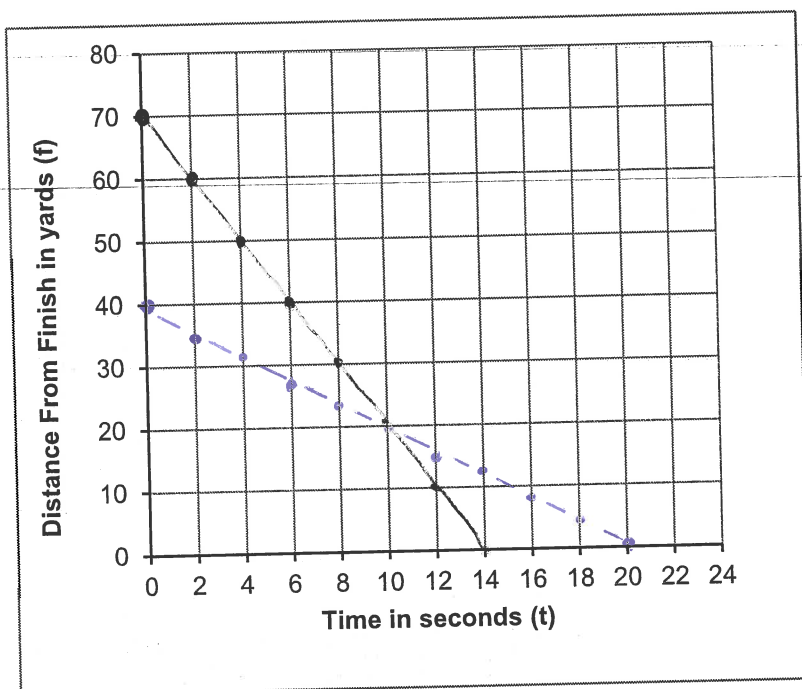
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = -2t + 40$$

Earlier this week, you did a Pre-Assessment called "The Race".

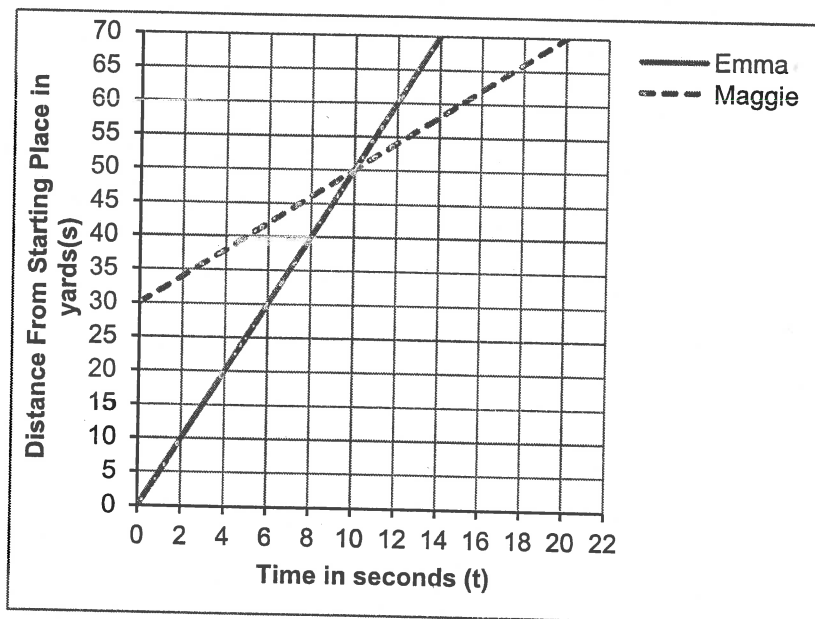
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Emma is running the fastest, because she is going from ~~slow~~ a slow pace to a fast pace.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

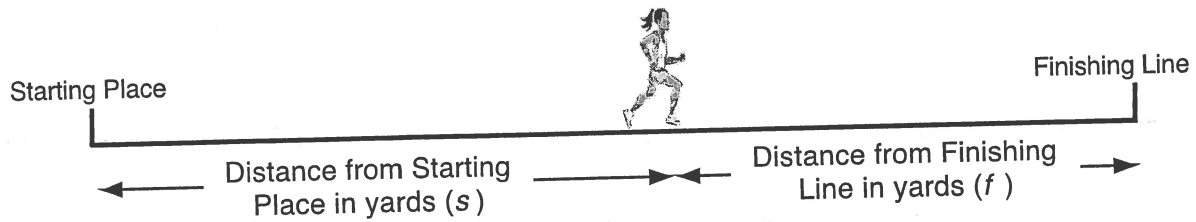
What is the equation that represents Maggie's line?

$$s = 30 + 5t$$

3. Describe what happens in the race.

When Maggie and Emma race they go from slow speed and work their way up so they go to the fastest speed in the race, so it can be a tie.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

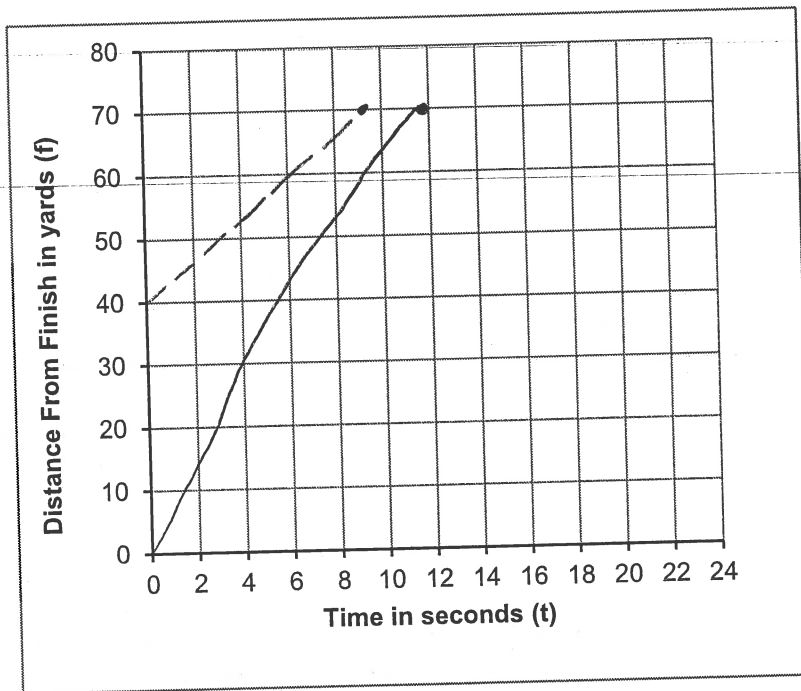


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = 40t$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

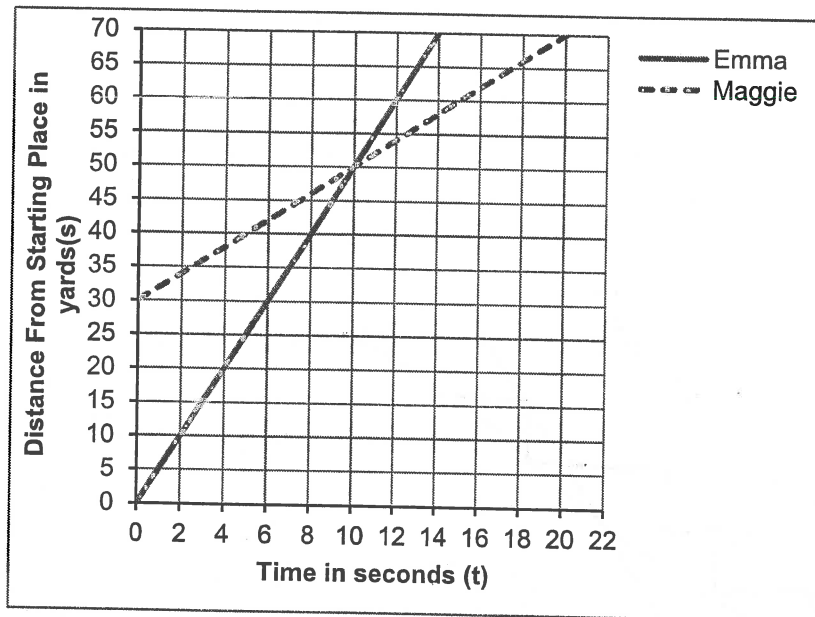
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 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



After five seconds Emma takes the lead of Maggie. Emma is running the fastest

1. After five seconds, who is running the fastest? Explain your answer.

After five seconds Maggie is running faster because her line is more steeper at that time.

2. Emma's line can be represented by the equation:

$s = 5t$ s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

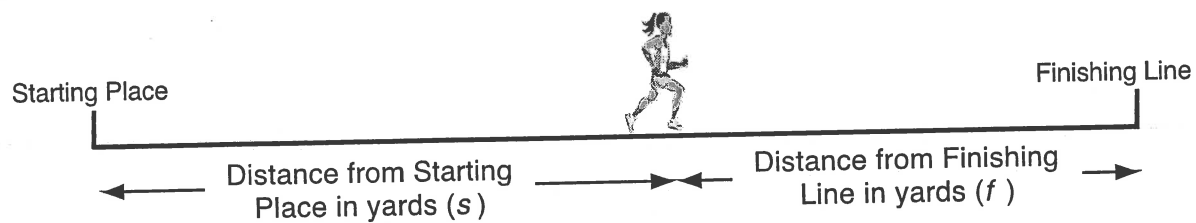
What is the equation that represents Maggie's line?

$30 = 5t + 30$

3. Describe what happens in the race.

In the race, first of all, Maggie gets a 30 ^{feet} head start, while Emma starts from the beginning. While it goes on, at 10 sec the race is tied and Emma is getting ready to pass Maggie. ~~Maggie~~ Emma won because her line is steeper.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



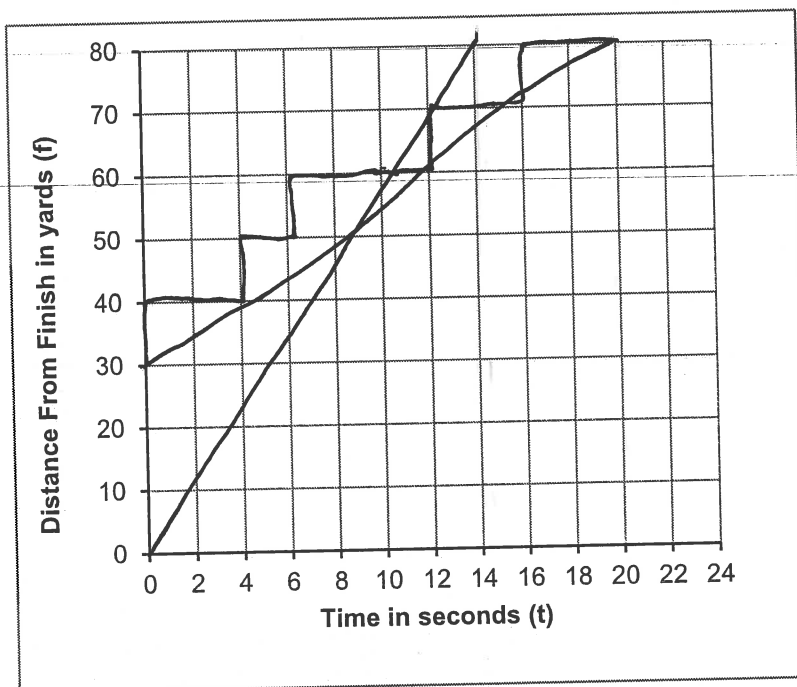
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$1/2 = \frac{1 \text{ distance}}{2 \text{ seconds}}$$

Earlier this week, you did a Pre-Assessment called "The Race".

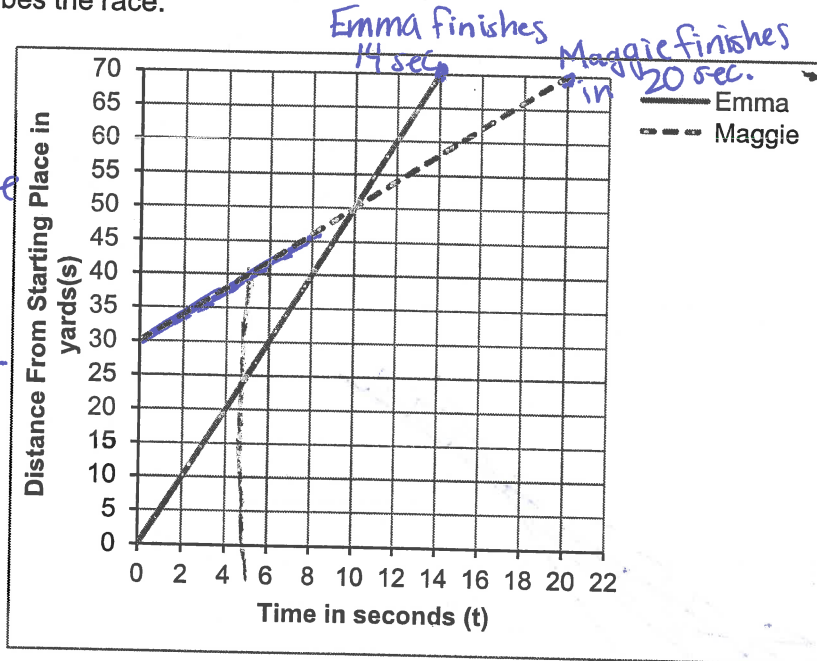
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 - ✓ How can you figure out the rate of each runner?
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



Emma wins because she finishes in 14 seconds and Maggie finishes in 20 but 14 is less than 20 so that means Emma wins!

1. After five seconds, who is running the fastest? Explain your answer.

Maggie was running the fastest because she starts on the 30 yards and Emma started at the 0 yard.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

$$30 = 5t$$

$$s = 30$$

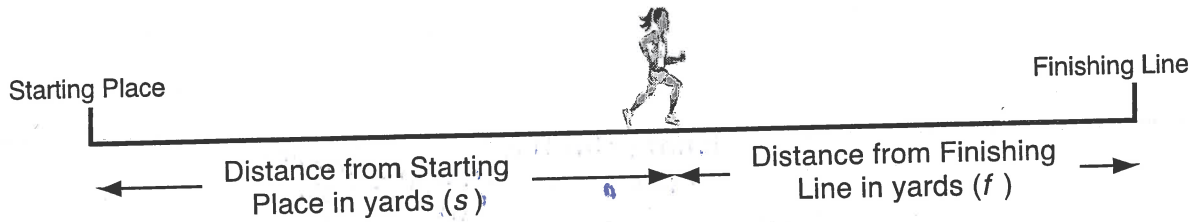
$$t = 11$$

$$30 \times 5 \times 11 = 530$$

3. Describe what happens in the race.

Emma has a proportional line because she is going straight up and Maggie isn't proportional because she's running slanted.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

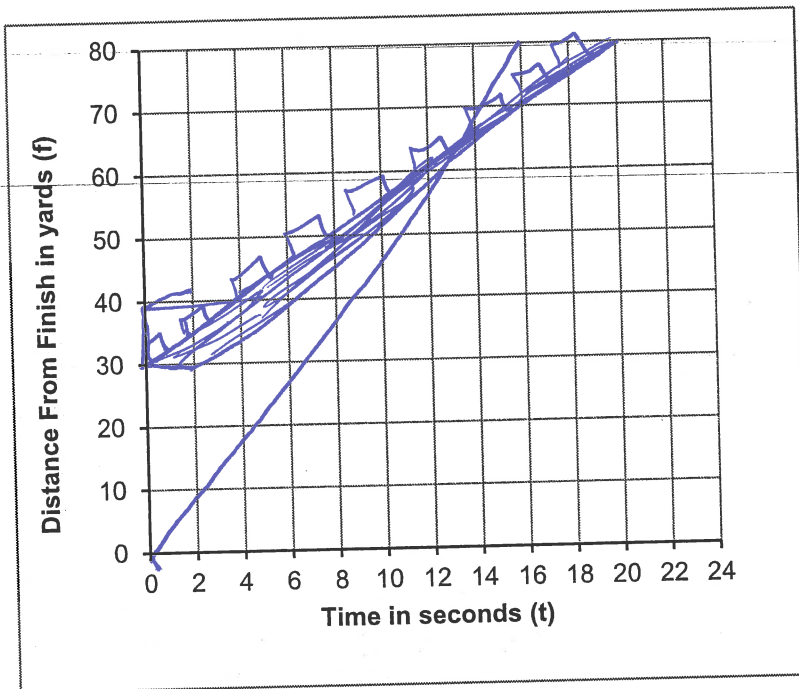


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



— Emma
 ■■■■■ Maggie

On this graph the distance is measured from the runner to the finish, not the start.

x dis.	y Time
0	0+10
+2	10
+4	20
+6	30

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$\frac{1}{2} = \frac{1 \text{ distance}}{2 \text{ seconds}}$$

$$\begin{array}{r} 11 \\ 30 \overline{) 530} \\ \underline{30} \\ 230 \\ \underline{210} \\ 20 \end{array}$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

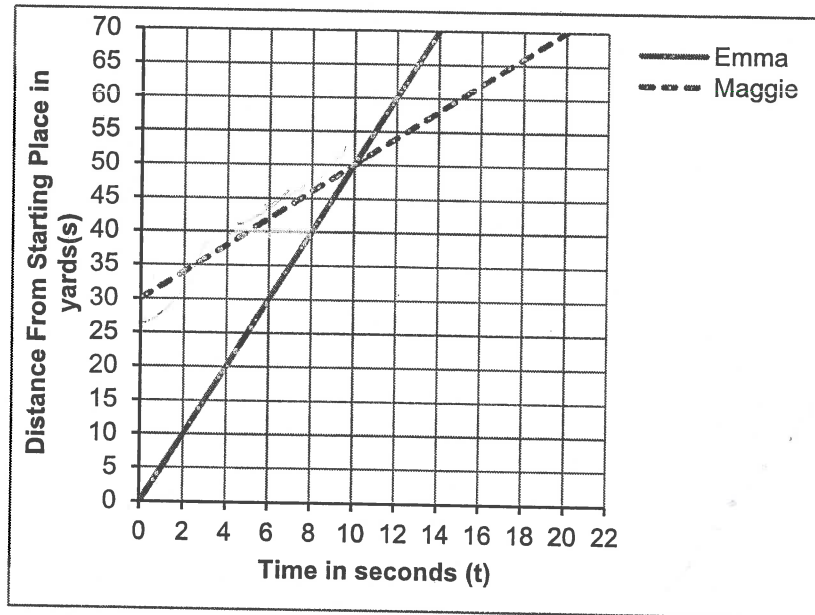
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Emma because her line is steeper straight also she caught up

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

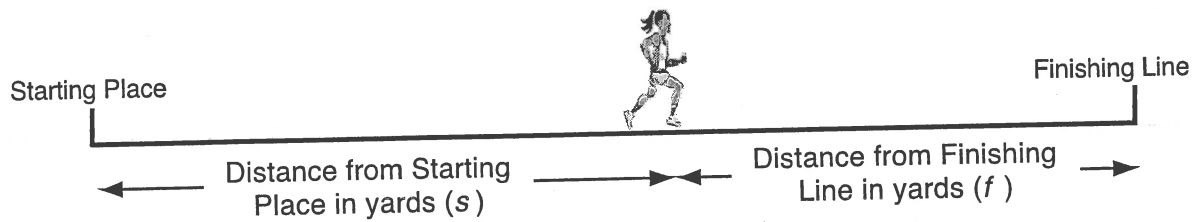
~~$s = 5t + 30$~~ $s = t + 30$

I didn't solve this one

3. Describe what happens in the race.

Maggie gets a head start but Emma is faster

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

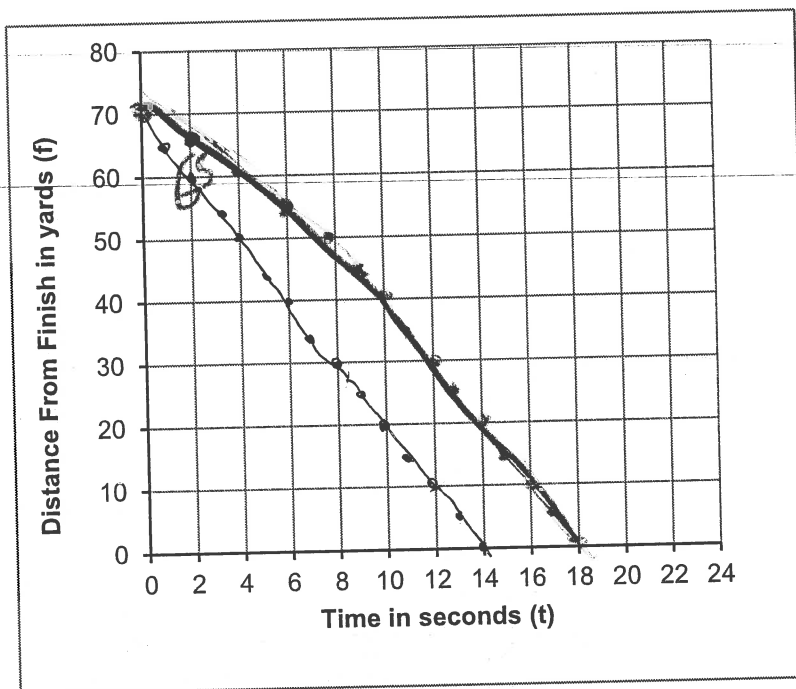


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = 70 - 5t$$

I didn't answer this one.

Earlier this week, you did a Pre-Assessment called "The Race".

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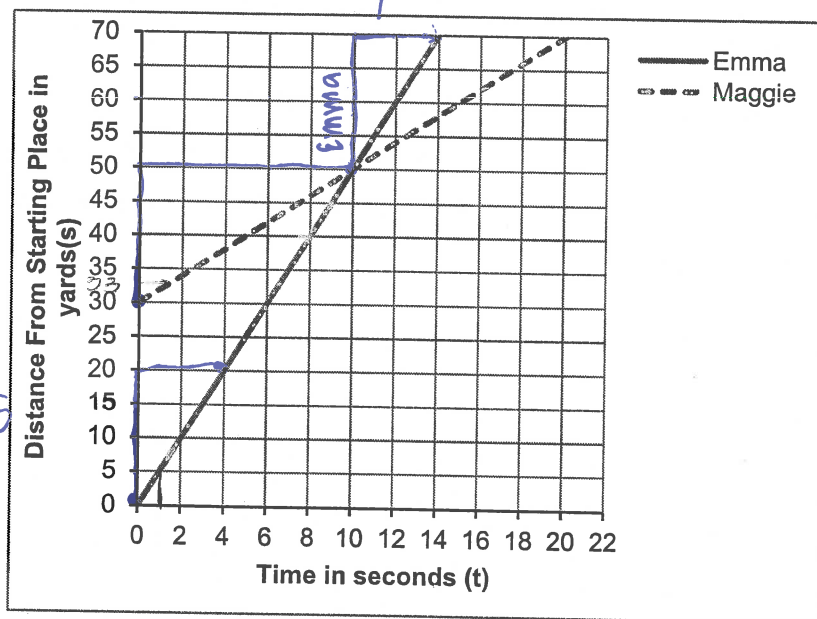
The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma. $\frac{20}{2} = 10$

The graph describes the race.

Maggie:
 $m = \frac{20}{10} = 2$
 Emma:
 $m = \frac{20}{4} = 5$



1. After five seconds, who is running the fastest? Explain your answer.

Emma b/c every 1 second emma runs five yards while Maggie only runs 2^2 yards every second.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

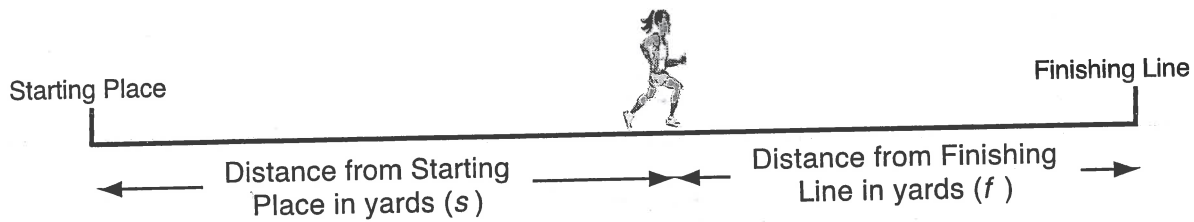
What is the equation that represents Maggie's line?

$s = 3t$ $s = 2t$ ←

3. Describe what happens in the race.

Emma catches up to Maggie & runs 70 yards in 14 seconds while Maggie runs 70 yards in 20 seconds. Emma starts at the start line while Maggie starts 30 yards ahead of the start line. They meet at 50 yards 10 seconds in & Emma passes Maggie & wins the race. Emma's r.o.u changes from 5 yards every 1 second to 10 yards every 2 seconds.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

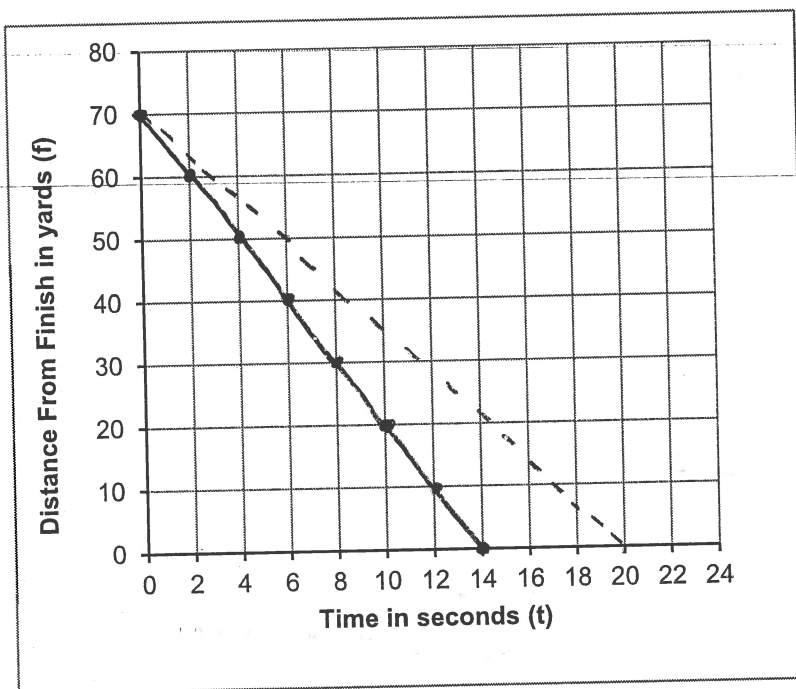


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = -2t + 70$$



Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

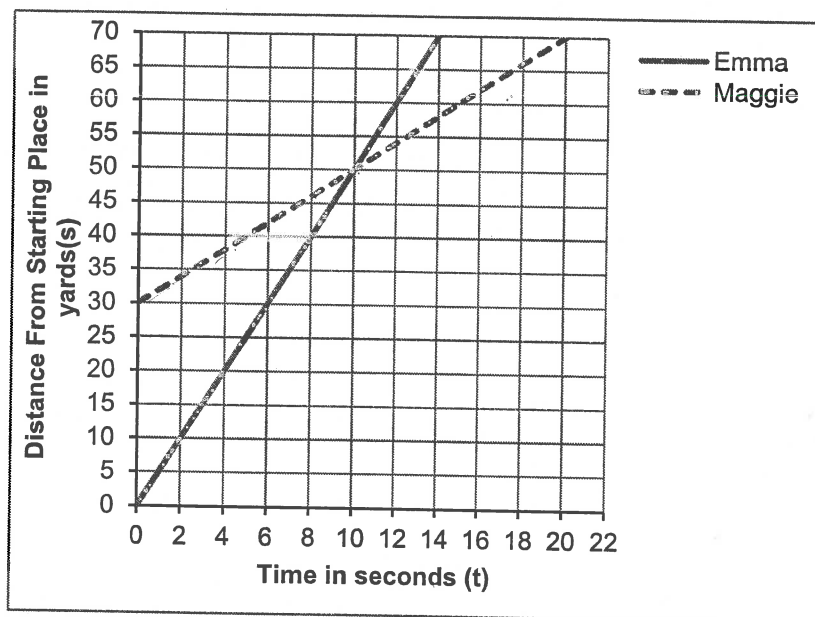
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Emma is running faster because Maggie runs half the time that Emma does.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

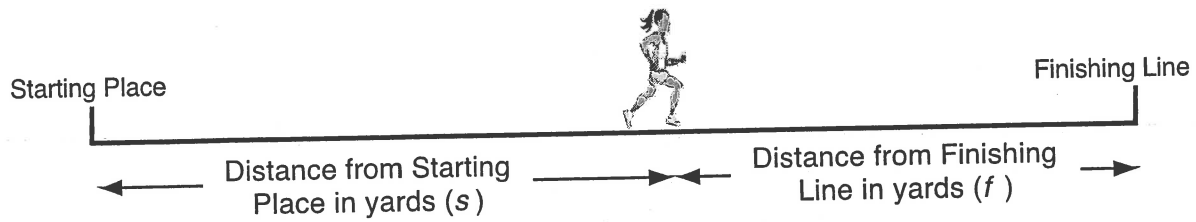
What is the equation that represents Maggie's line?

$$s = 2.5t + 30$$

3. Describe what happens in the race.

Emma keeps running straight and doesn't stop. While Maggie

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

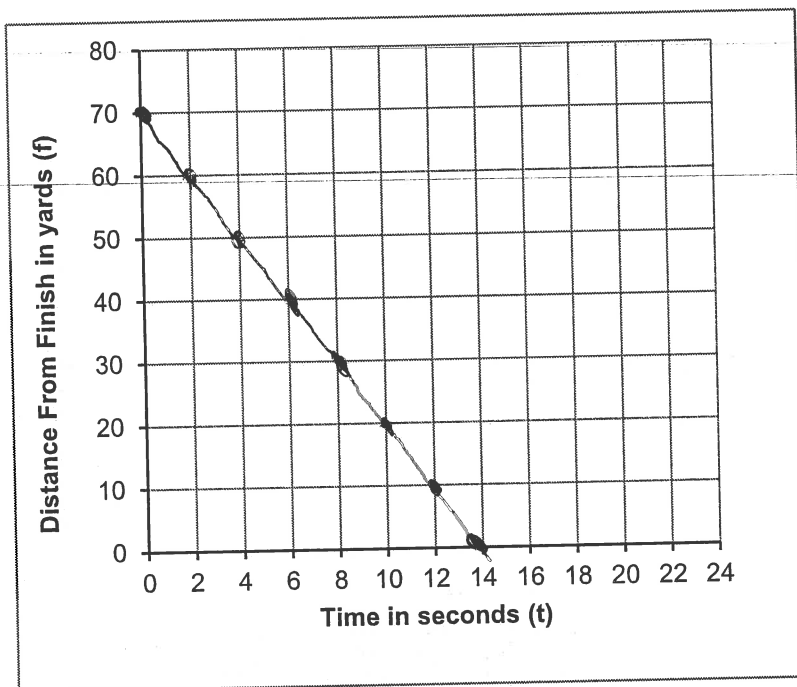


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

The equation is a decrease

Assessment

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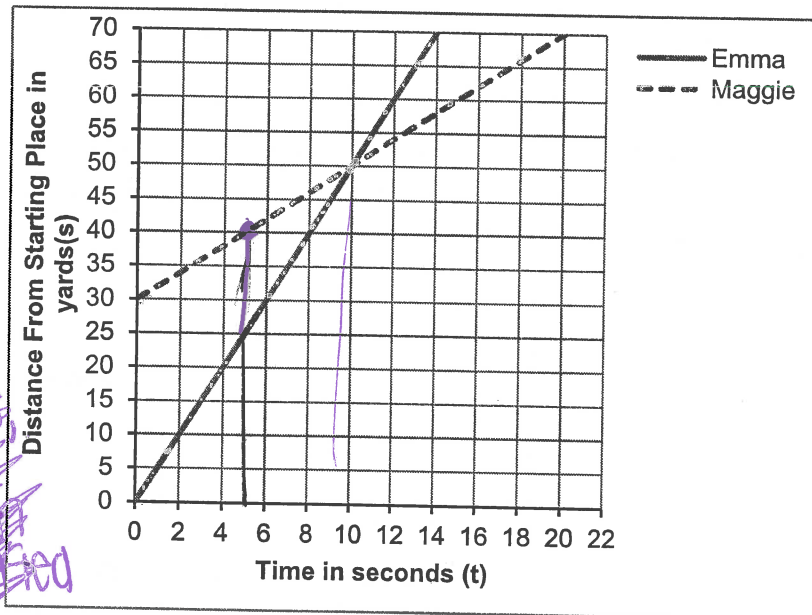
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



25
40

After five seconds, Emma is running faster than Maggie because Emma started first.

Maggie is still running faster than Emma at 6 seconds because

1. After five seconds, who is running the fastest? Explain your answer.

After five seconds, Maggie is running faster because she runs 40 yards & Emma runs 25 yards.

seconds because

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

Emma doesn't overlap Maggie until 10 seconds.

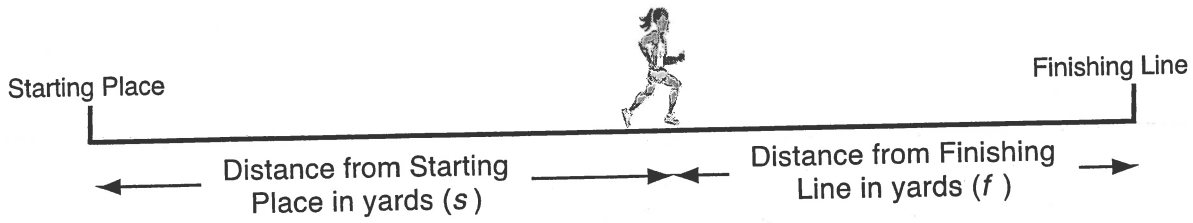
What is the equation that represents Maggie's line?

t should equal Maggie's line because she did not start at starting place, she started ahead of Emma.

3. Describe what happens in the race.

In the race Maggie starts ahead of Emma but runs more yards in 5 seconds. In 10 seconds that's when Emma beats Maggie.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

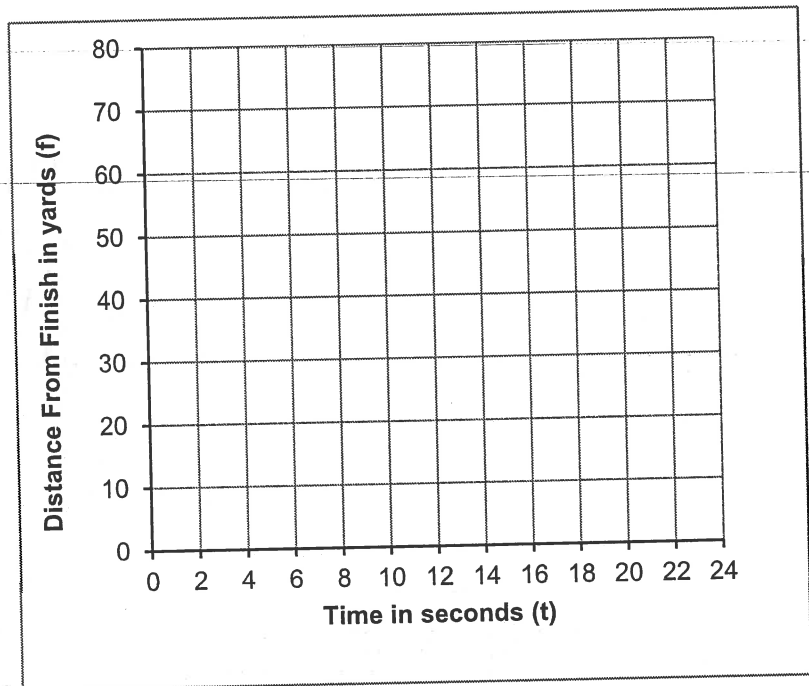


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

- b. Add a line to the graph that represents Maggie's race.
- c. What is the equation of this second line?

Assessment

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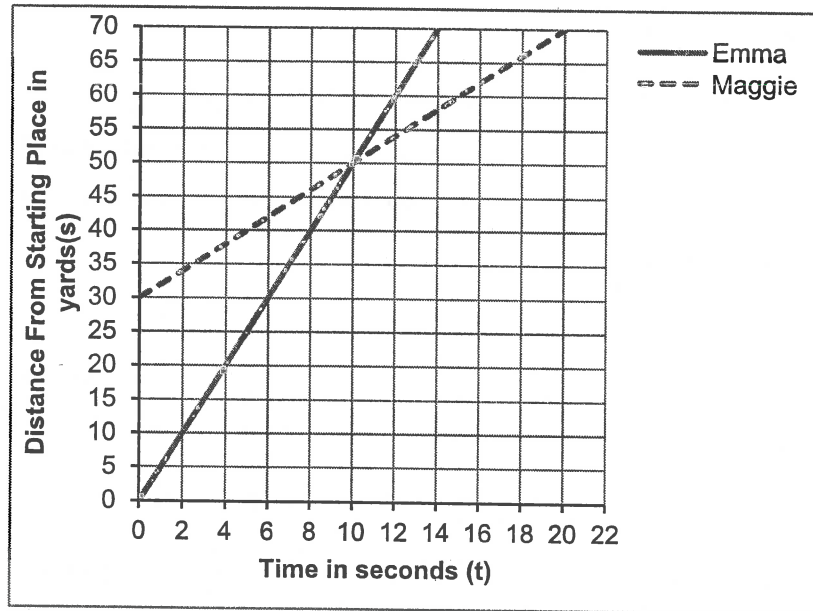
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Maggie is running faster because she ran around 40 yards in five seconds while Emma ran around 25 yards.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.

t is the time, in seconds, from the start of the race.

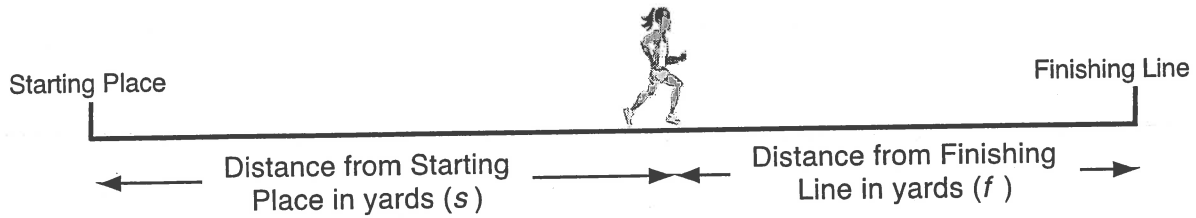
What is the equation that represents Maggie's line?

$$s = 2.5t$$

3. Describe what happens in the race.

Maggie starts off faster, but by the end, Emma ran 70 yards in 14 seconds while Maggie ran 70 yards in 20 seconds.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

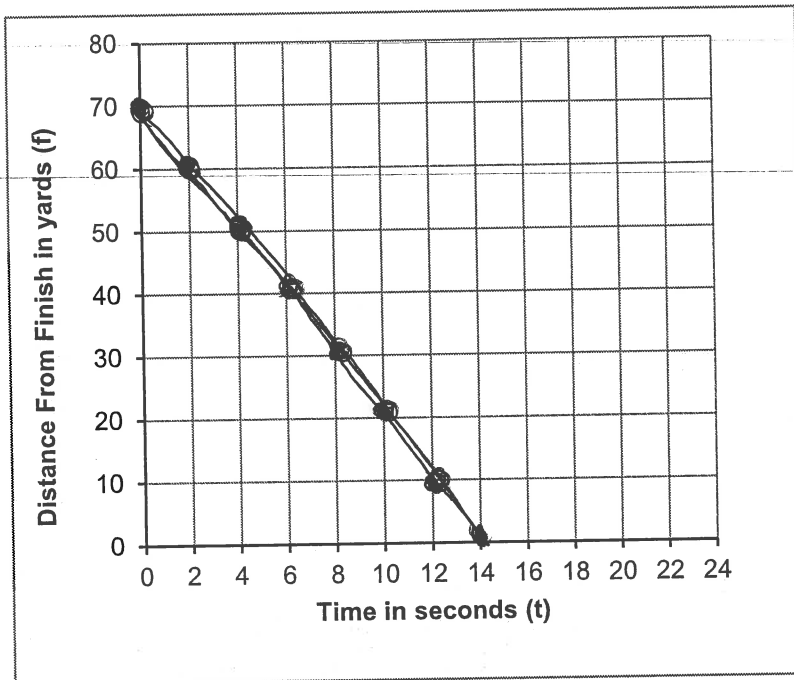


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$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
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a. Plot this line on the graph.



Emma
 Maggie

On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = 90t$$

Assessment

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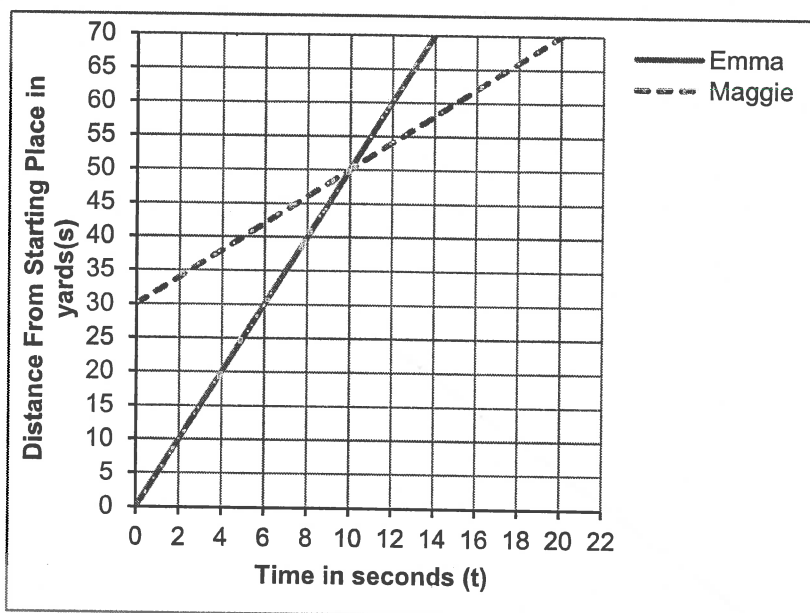
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- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie is running faster at 5 seconds because,~~
~~Emma is running at 25y in 5 seconds while Maggie is~~
~~at 40y in 5 seconds~~

Emma is running faster because she has a steeper line.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.

t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

~~$y = 30x + 5$~~

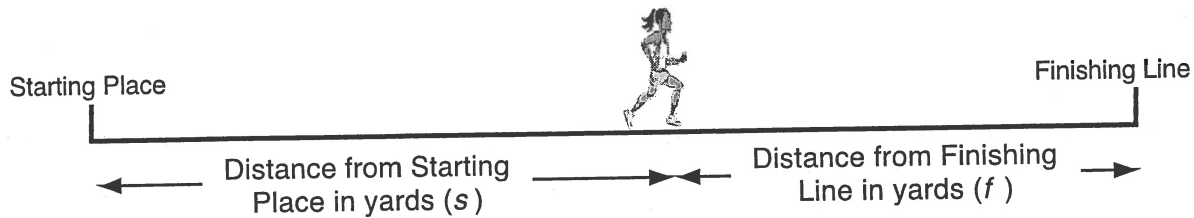
Sorry I want to keep this
 $y = 30x + 5$

x-time	y-yards
0	30
2	35
4	40
6	45

3. Describe what happens in the race.

~~Maggie wins the race because she started~~
~~at a farther than Emma.~~ Emma wins the race
 because the line for her is steeper than Maggie's.
 Also the steeper line means it is going faster.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



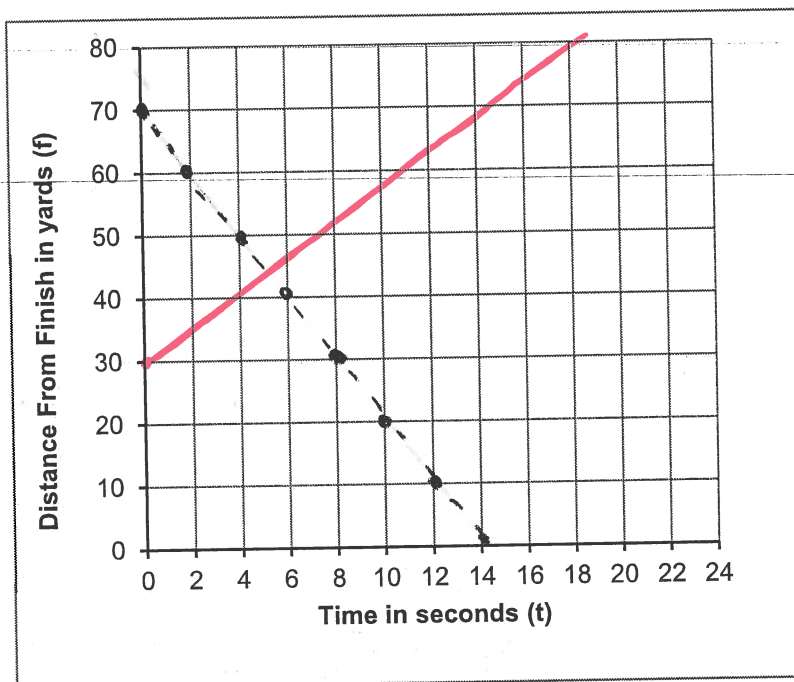
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race. ✓

c. What is the equation of this second line?

$$y = 30x + 5$$

Earlier this week, you did a Pre-Assessment called "The Race".

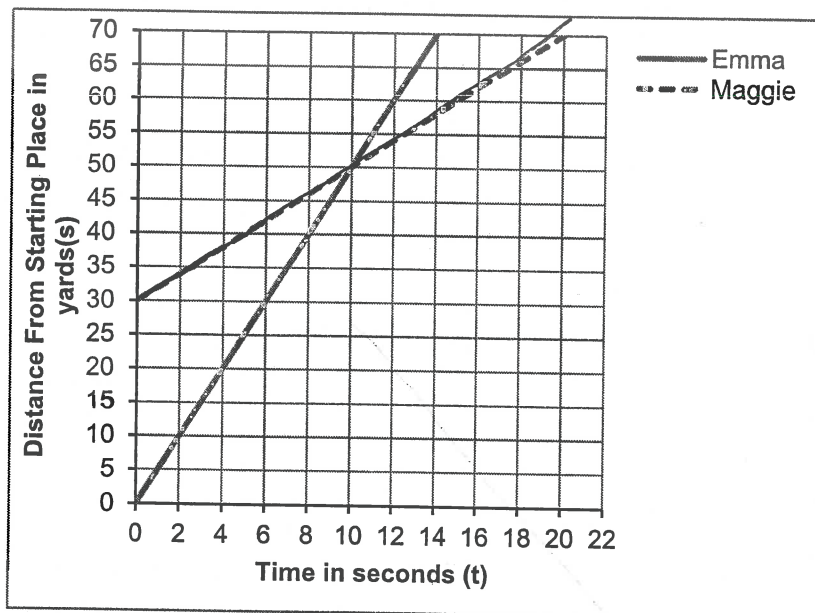
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

I think emma is the fastest runner.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

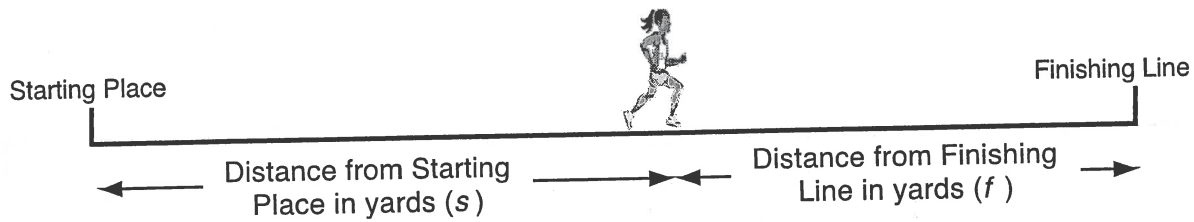
What is the equation that represents Maggie's line?

$$t = 8s$$

3. Describe what happens in the race.

What happens in the race is that Maggie cheated and Emma started where they had to start.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

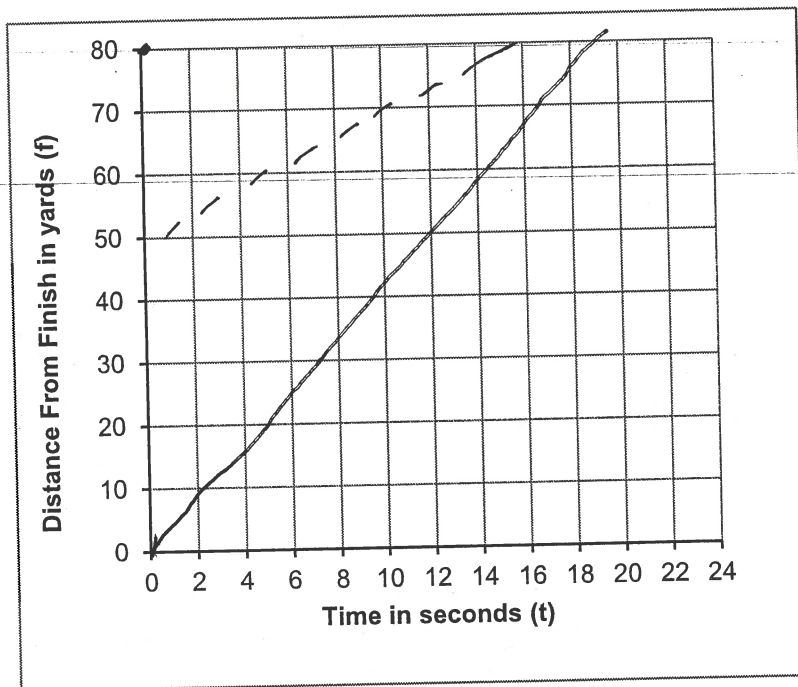


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

~~scribble~~

Earlier this week, you did a Pre-Assessment called "The Race".

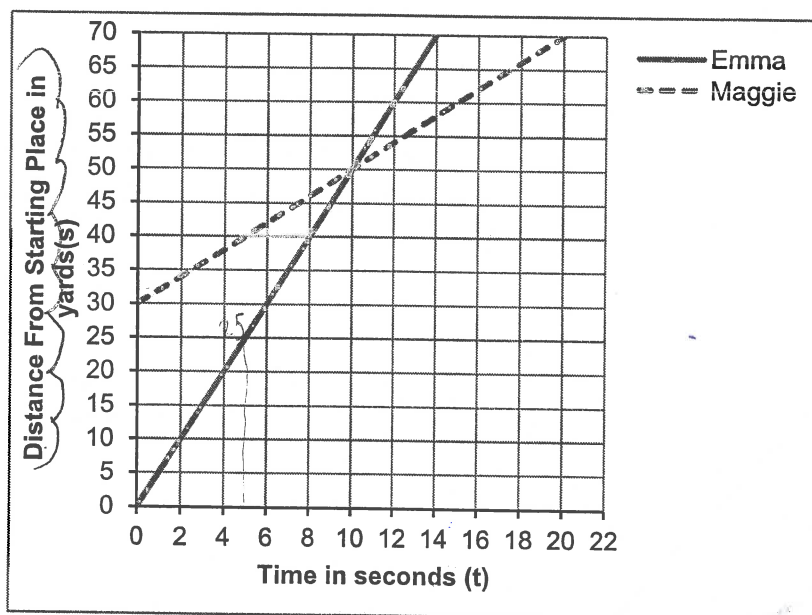
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
you can find that from the graph
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Emma is running faster than Maggie since her rate of change is 15 faster than Maggie

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

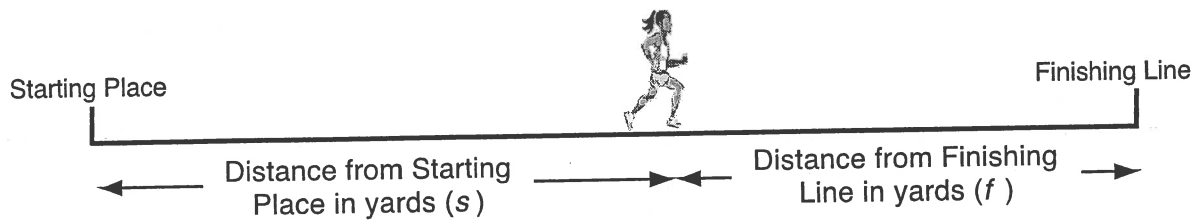
What is the equation that represents Maggie's line?

~~$s = 2t + 30$~~ $s = 2t + 30$

3. Describe what happens in the race.

During the race Maggie gets in the lead at first since she started off farther than Emma. But she started to slow down and that was when Emma caught up and finished 6 seconds faster than Maggie

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



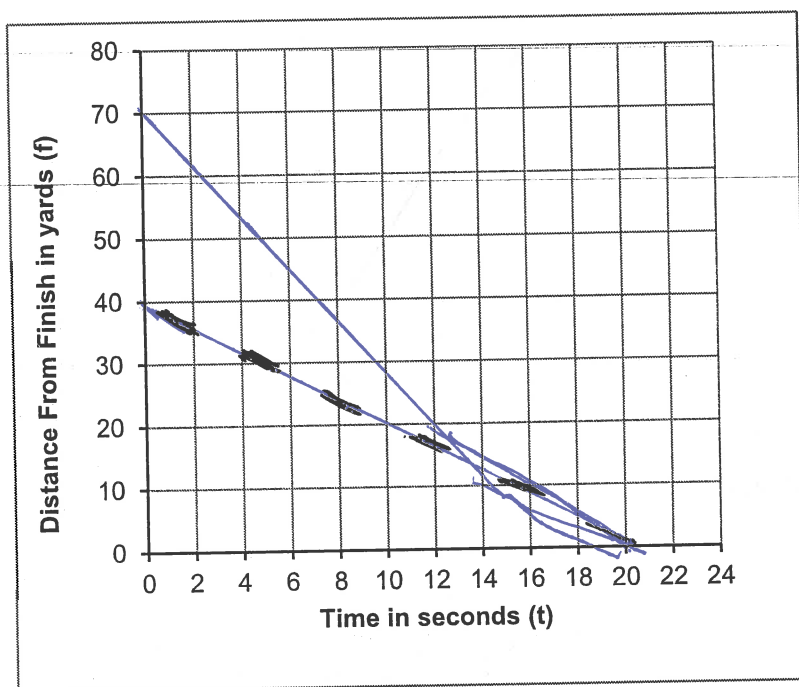
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = -2t + 40$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

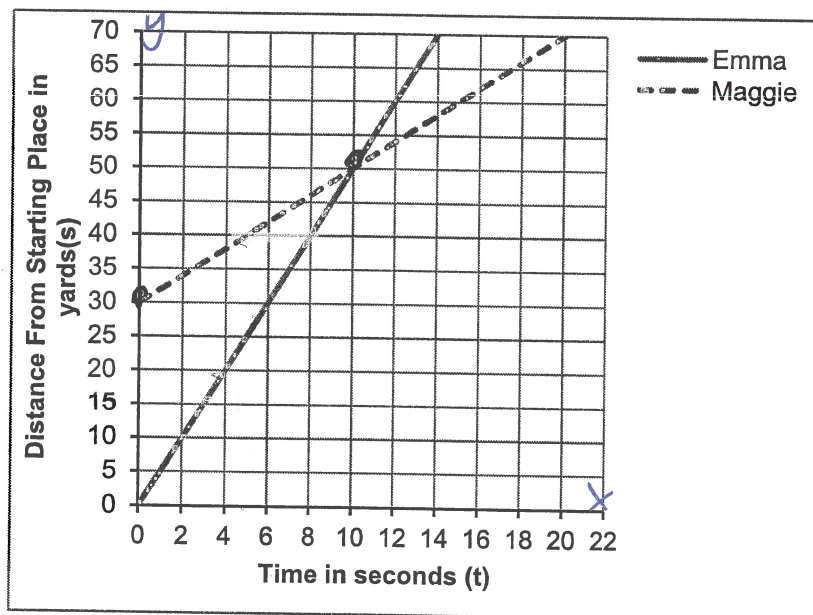
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Emma because every time she runs in every second she starts about to run four more yards which is 5 yards,

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

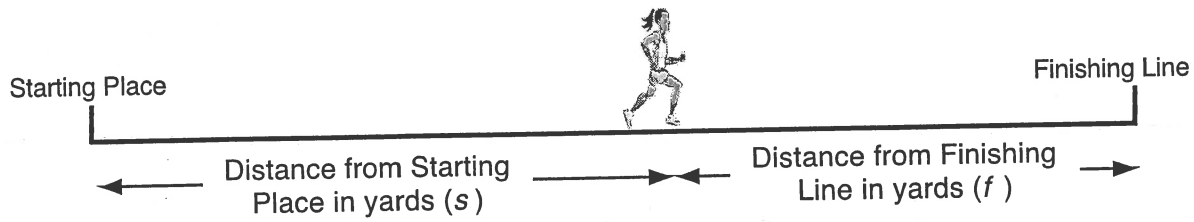
What is the equation that represents Maggie's line?

$$s = 3t$$

3. Describe what happens in the race.

Emma begins beating Maggie in track by 2 seconds,

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

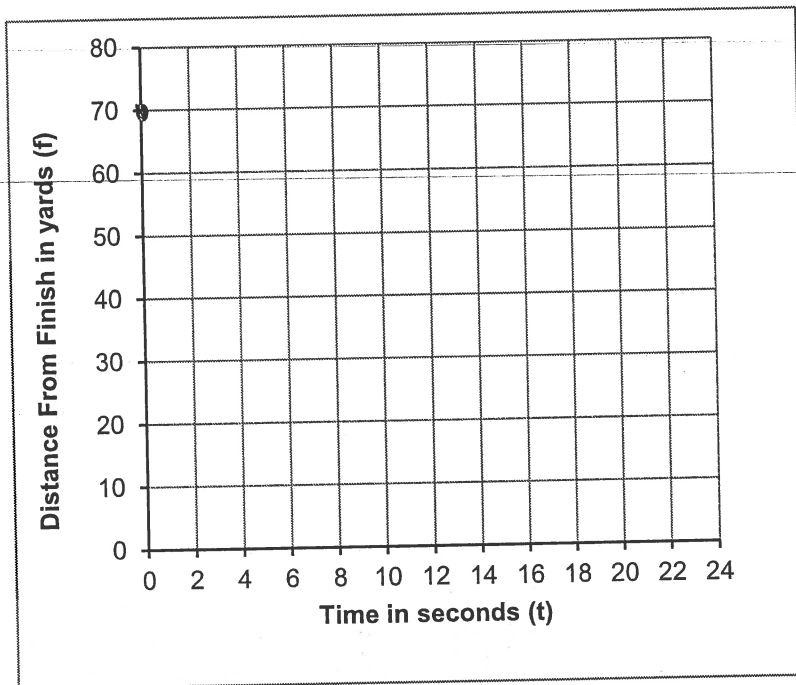


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

- Add a line to the graph that represents Maggie's race.
- What is the equation of this second line?

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

- Using a pen, go back and redo the task using what we learned and practiced this week.
- Strike through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:

✓ Where does each runner start in the race? How do you know?

Maggie starts in 30 yards, while Emma starts in the starting line (0 yards) because

✓ How long is the race? How do you know? it shows on the graph.

✓ Who wins the race? How far ahead are they when they cross the finish line?

Emma wins the race and beats the pokemon by 2 seconds.

✓ How can you figure out the rate of each runner?

By looking how fast there running on the chart.

✓ During the race, does Emma's or Maggie's rate (or speed) change?

✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?

The x-axis and The x-axis is the length and width of the chart.

~~✓~~ For the graph on problem 4, what does the y-axis represent?

The y-axis represented is the Distance from finish in yards (f).

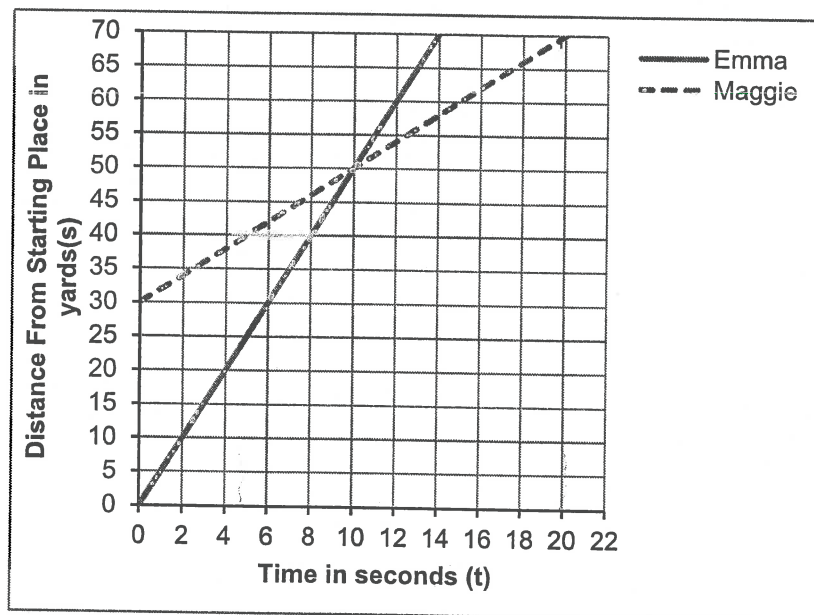
✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

~~Emma~~ Emma because she's catching up to Maggie.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

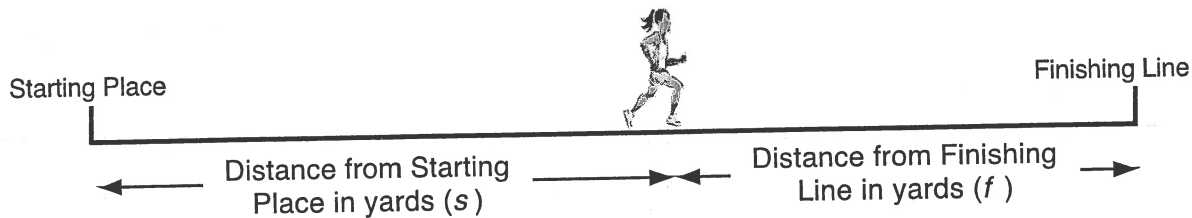
$$d = 2.5t$$

3. Describe what happens in the race.

Emma starts behind Maggie in a race but Emma goes faster than Maggie and is able to pass and finish before Maggie.

$$\begin{array}{r} 12.5 \\ 2.5 \\ \hline 50.0 \end{array}$$

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

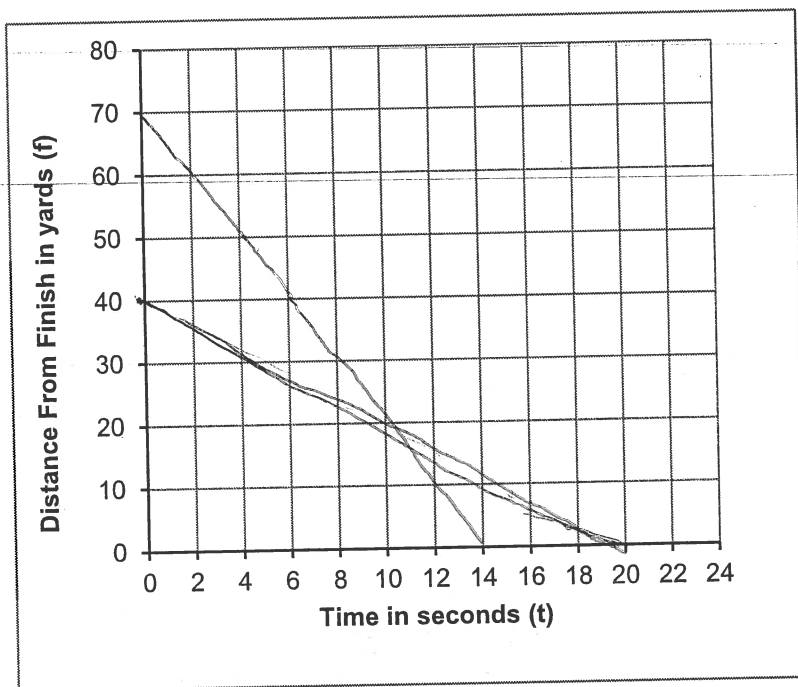


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



— Emma
 - - - Maggie

On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = -2.5t + 40$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

- Using a pen, go back and redo the task using what we learned and practiced this week.
- Strike through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ① ✓ Where does each runner start in the race? How do you know?
Emma starts at the starting place while Maggie is ahead because Maggie's line starts at 30.
 - ② ✓ How long is the race? How do you know?
The Race is 20 seconds long because that's when the last person finishes.
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ③ ✓ How can you figure out the rate of each runner?
By finding each runner's unit rate.
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

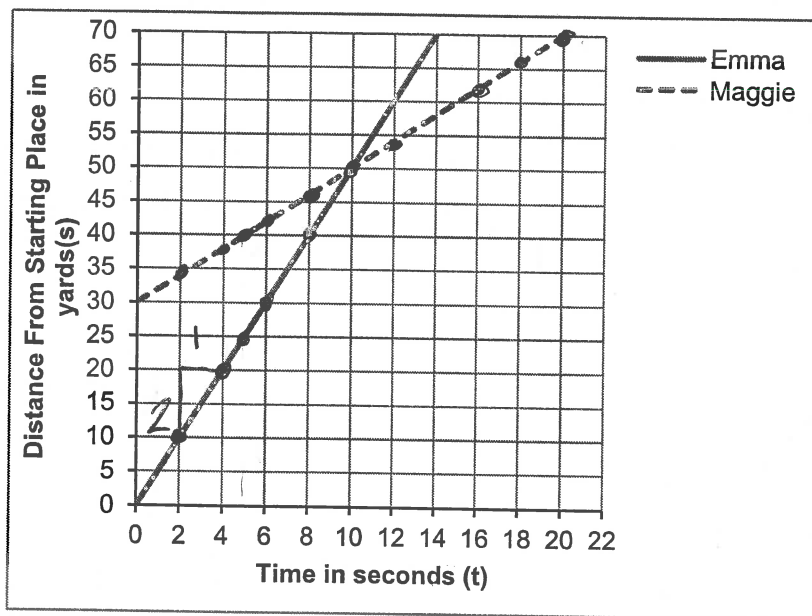


The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



Time (seconds)	yards
0	0
2	10
4	20
6	30
8	40

1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie is running faster because she is at 40 yards while Emma is at 25 yards. She also has a higher slope.~~
 Emma is running faster because she finishes first, and she has a higher slope.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

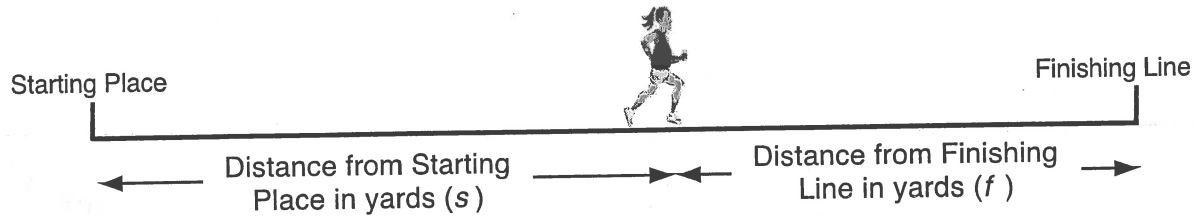
~~$s = 5t$~~

$$s = 5t$$

3. Describe what happens in the race.

In the race they both are running at different speeds. They both get to 70 yards at different times because Maggie got a head start, but they get to 50 yards at the same time.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



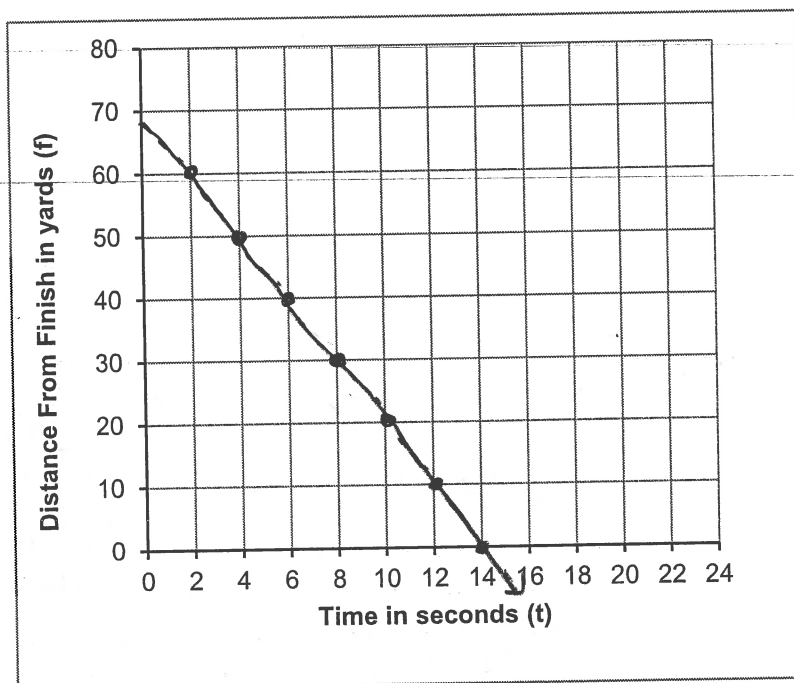
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

seconds	yards
0	0
2	60
4	50
6	40
8	30
10	20
12	10

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = t \quad t = f - 58$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

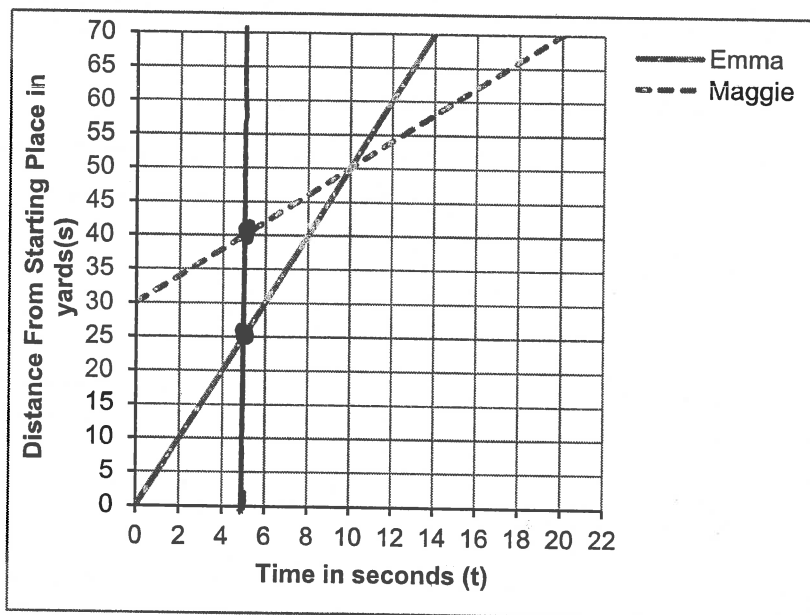
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

in five second maggie is running faster because if you were to see the distance in five seconds maggie is winning

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.

t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

X

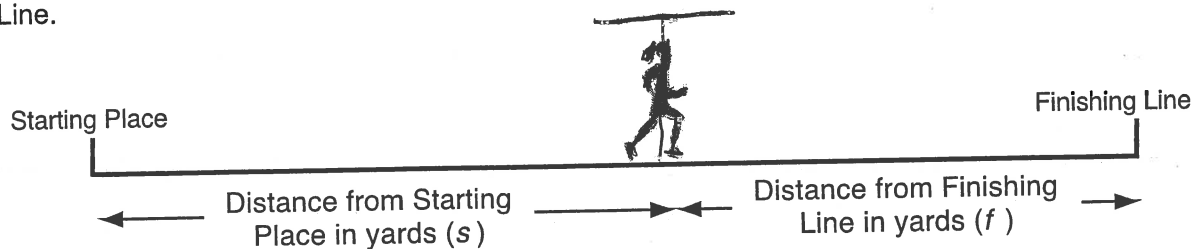
~~$s = 30 + 5t$~~

$s = 30 + 5t$

3. Describe what happens in the race.

maggie gets a head start in the race and emma slowly catches up.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



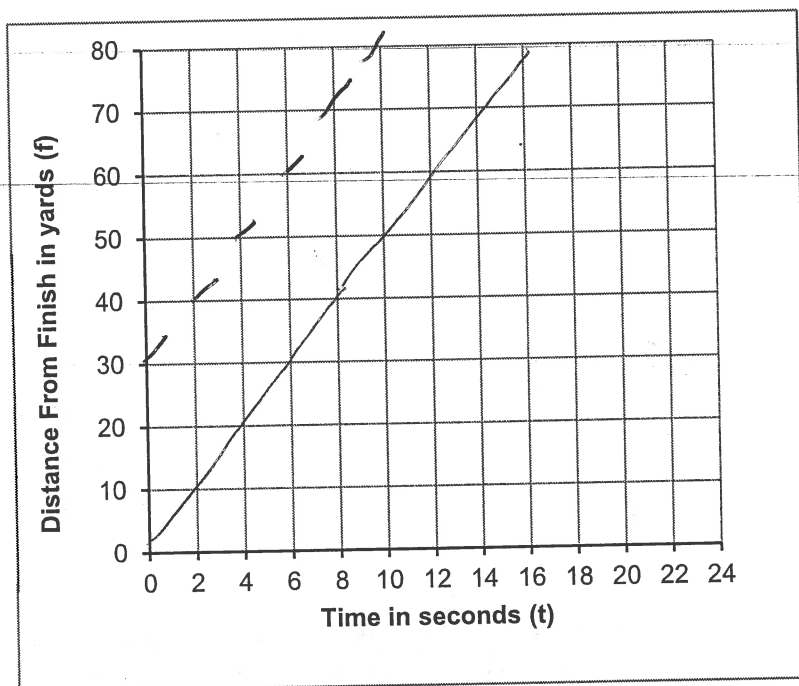
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$x = 30 - 5x$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

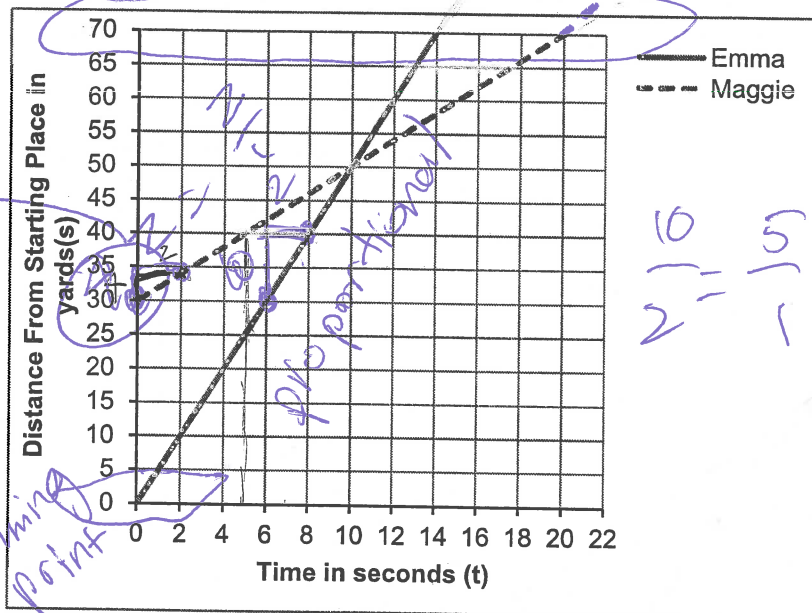
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - Where does each runner start in the race? How do you know?
 - How long is the race? How do you know?
 - Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



Emma runs faster. I know this, because 1st, she made it to the finish line first ever when Maggie started before her, and 2nd with this Emma is running 5 yards every second, while Maggie is running 2 yards every second.

$$\frac{10}{2} = \frac{5}{1}$$

4
2 = 2

1. After five seconds, who is running the fastest? Explain your answer.

Emma is running faster in 5 seconds, because Maggie may be before Emma, but that's because she started before her.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

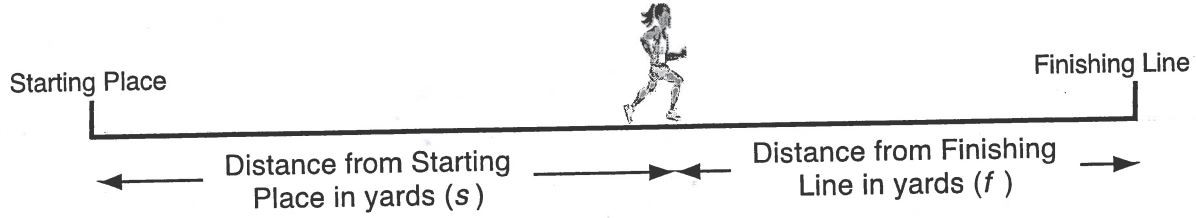
$$s = 2t + 30$$

3. Describe what happens in the race.

Emma wins because she is consistent and runs faster than Maggie. Emma runs 5 yards.

Emma is going to win since she is run at a constant pace and is running 3 more yards than Maggie every second.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

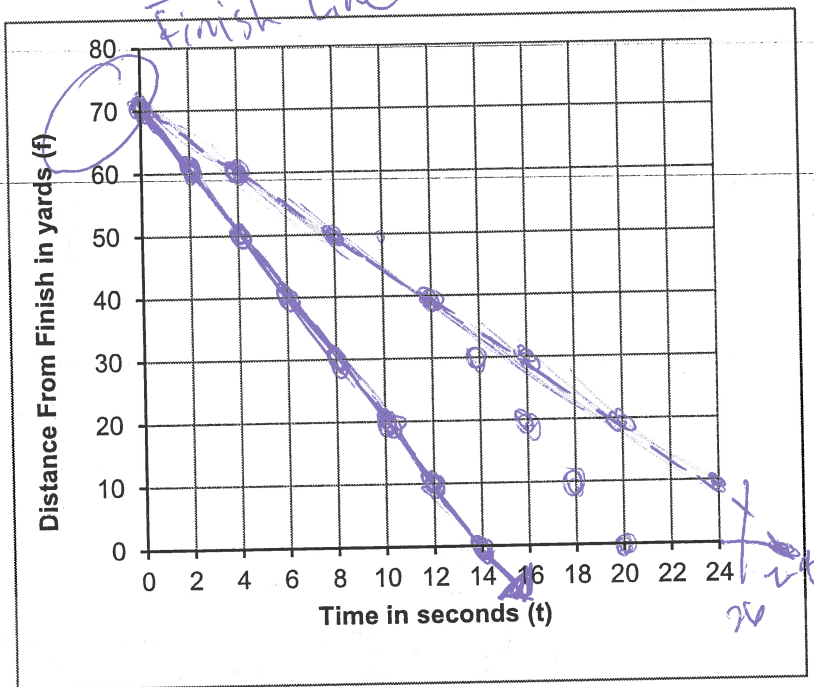


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = -2t + 80$$

Earlier this week, you did a Pre-Assessment called "The Race".

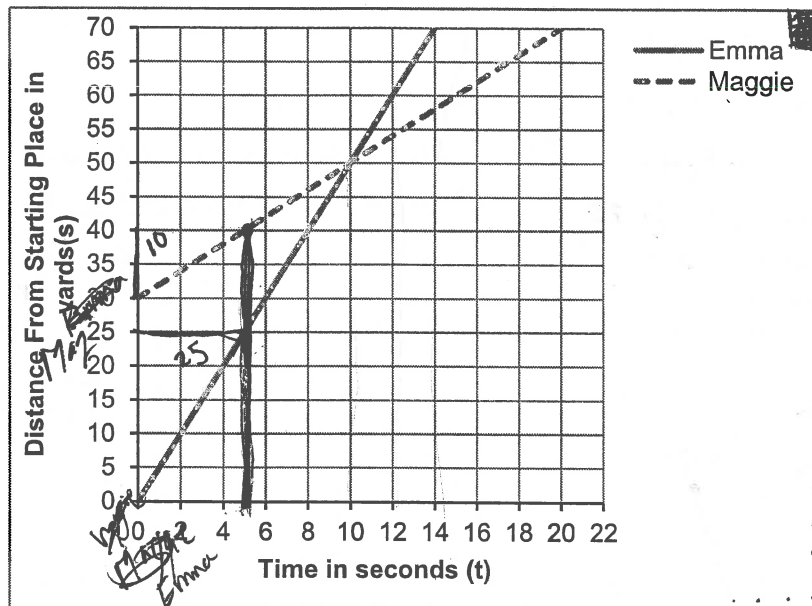
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie is running faster, Emma is running 25 yards in 5 seconds.~~

~~Maggie is running 40 yards in 5 seconds.~~

Emma is running faster because in 5 seconds she ran 25 yards, vs. Maggie only ran 10 yards in 5 sec.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

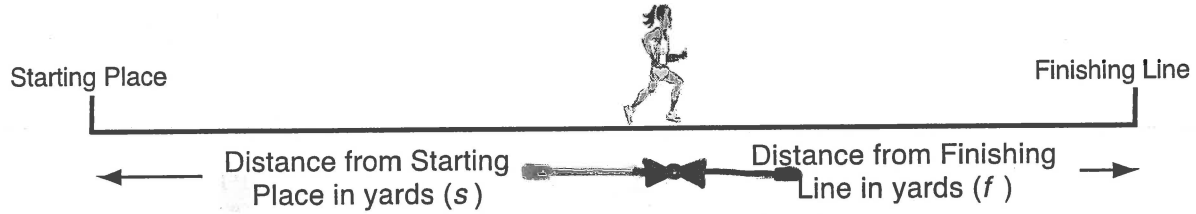
~~$s = 2t$~~

3. Describe what happens in the race.

Maggie has a head start, she starts at 30 yards.

Within 10 seconds, Emma catches up with Maggie. Emma runs ahead and Emma wins the race. Emma's line is steeper than Maggie's line.

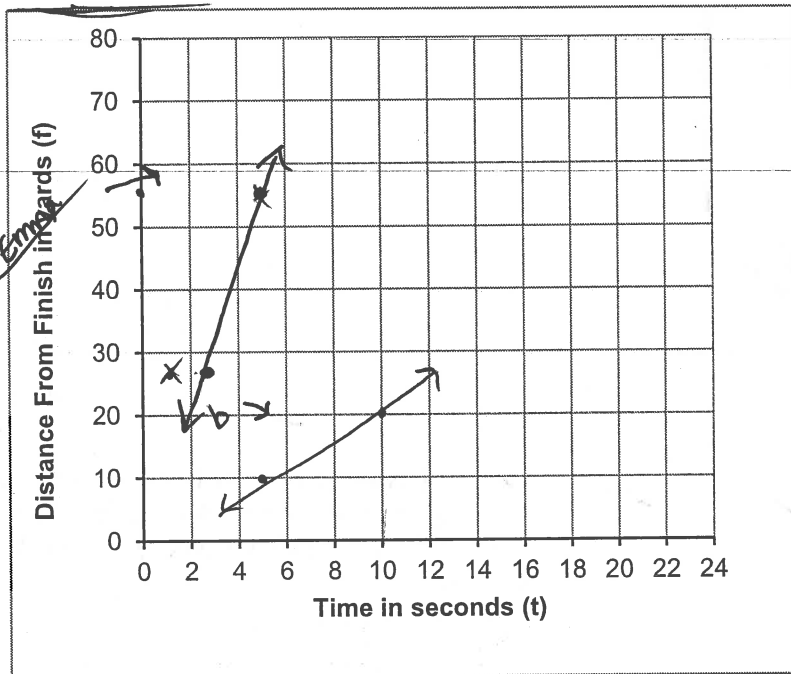
The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



4. The following equation can also be used to describe Emma's race:

$f = -5t + 70$ f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



$f = -5t + 70$
 $f = -50 + 70$
 $f = 20$

On this graph the distance is measured from the runner to the finish, not the start.

- b. Add a line to the graph that represents Maggie's race.
- c. What is the equation of this second line?

$f = -2t + 70$

Earlier this week, you did a Pre-Assessment called "The Race".

- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?



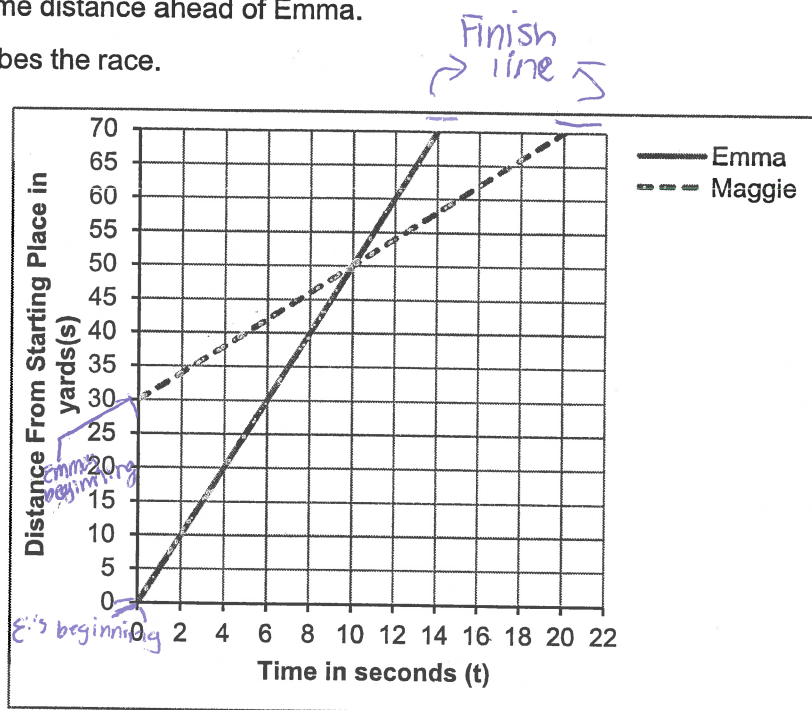
~~Handwritten scribbles and symbols in the right margin, including a large dark smudge and various symbols like 'x', '#', and 'E'.~~

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

① I think ^{Emma} Maggie is running the fastest because her line is heading up more than Emma's line is.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

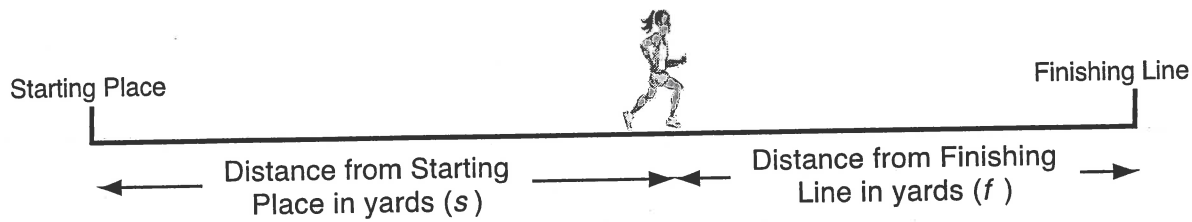
What is the equation that represents Maggie's line?

① $s = 3t$

3. Describe what happens in the race.

① Emma starts at the very beginning & Maggie starts at 30 yards. They cross paths at 50 yards but Emma finishes first at 14 secs.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

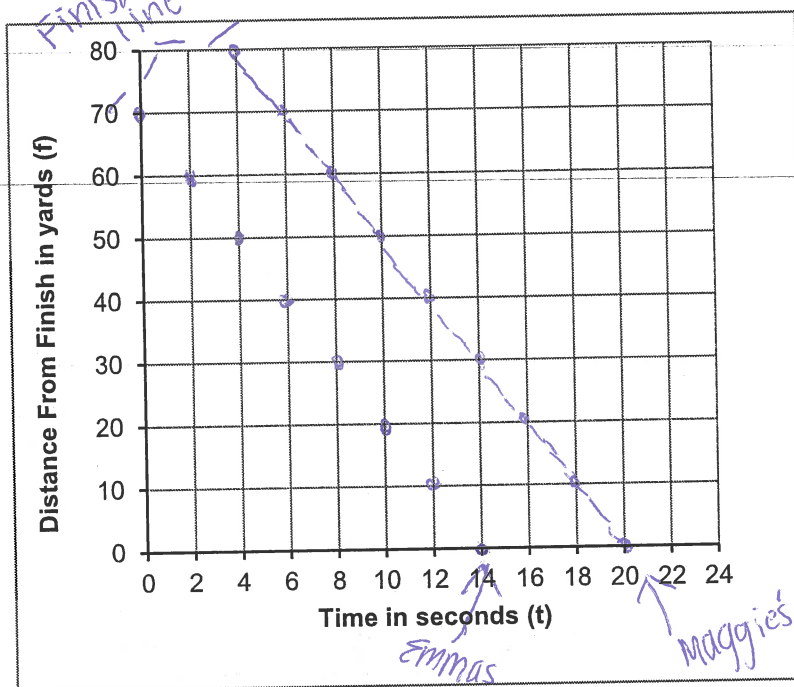


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

(A) $s = -\frac{1}{2}t + 70$

Earlier this week, you did a Pre-Assessment called "The Race".

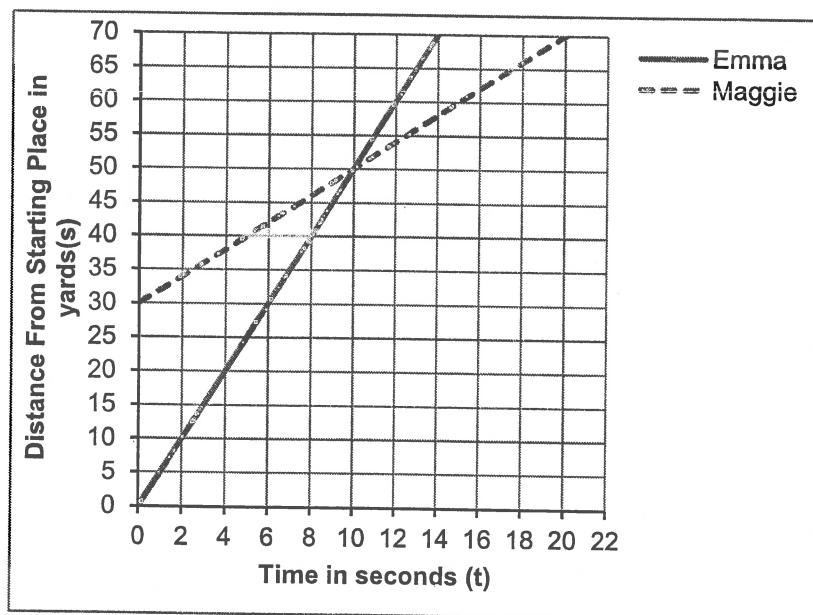
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Maggie is running faster because Emma is running 15 yards at 5 seconds and Maggie is running 40 yards at 5 seconds

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

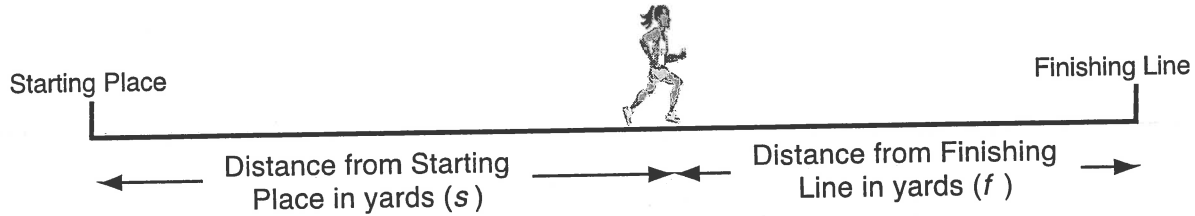
What is the equation that represents Maggie's line?

$$s = 15t + 30$$

3. Describe what happens in the race.

In the race Maggie starts at 30 yards and Emma starts at zero. When both runners get to 10 seconds Emma beats Maggie but Maggie falls behind.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



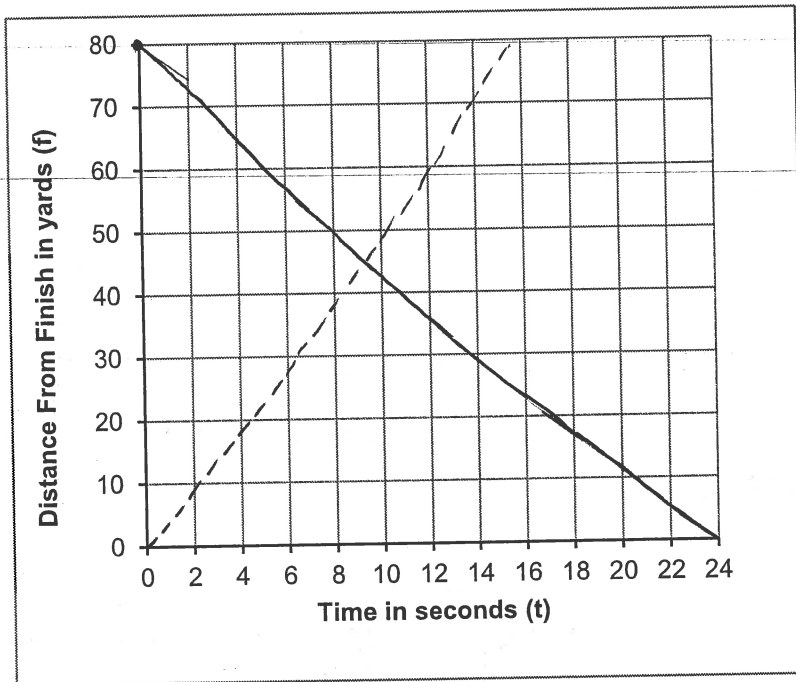
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = 5t$$



Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

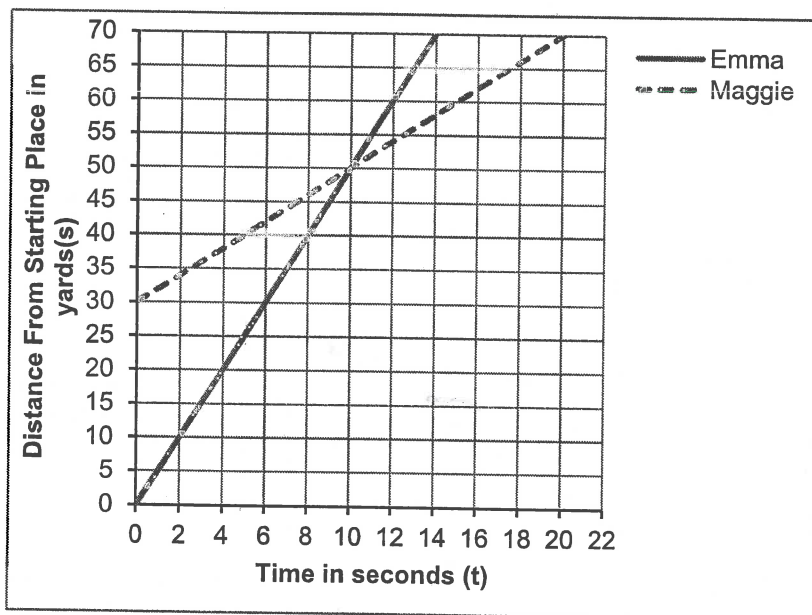
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - How can you figure out the rate of each runner?
 - During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



Emma was the fastest

1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie~~ because she had a start of distance ahead of Emma. Emma starts in 25 and Maggie starts at about 40 yards.

Maggie

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

Emma's is more steeper.

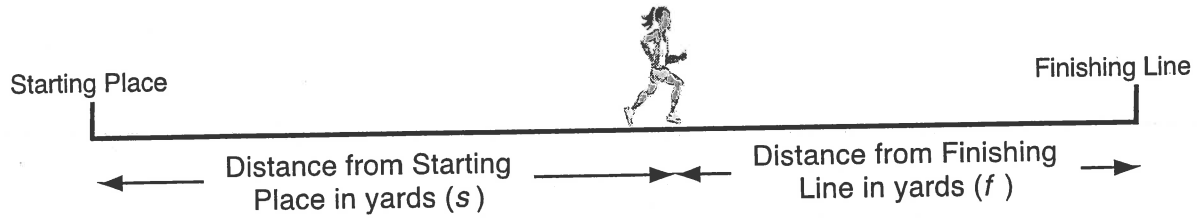
What is the equation that represents Maggie's line?

$$t = 5s$$

3. Describe what happens in the race.

~~Emma~~ In the race ~~Emma~~ gets a head start, Emma follows by as Maggie runs faster. In the race Emma gets a yard of 70 while in seconds she's done a ~~20~~¹⁴ seconds. Maggie starts at a 30 yard but ends it on 20 seconds.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



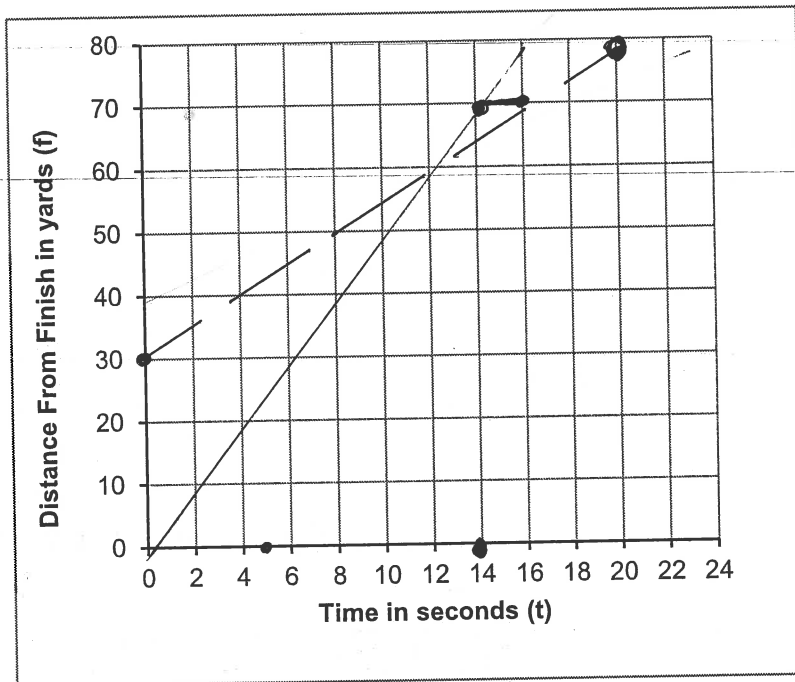
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = -5s + 70$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

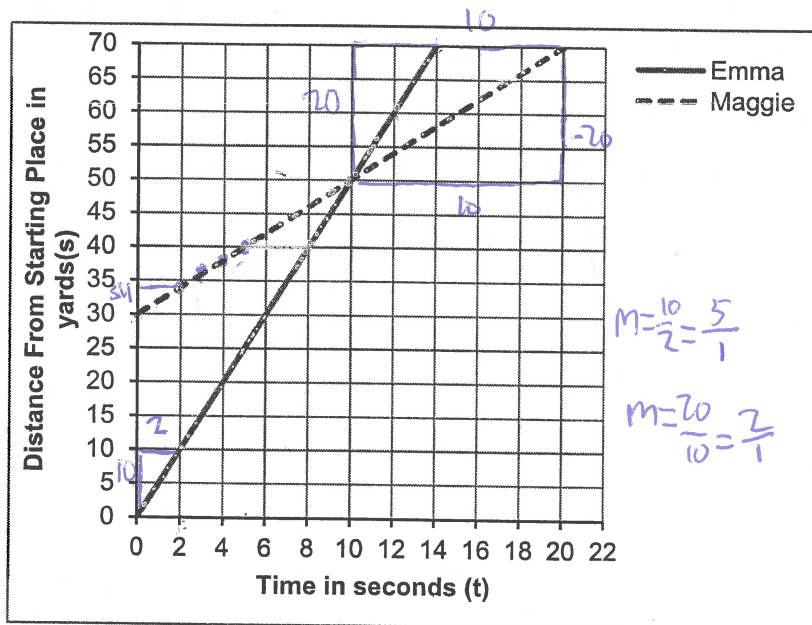
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Emma is running faster because in 14 seconds she went 70 yards while Maggie reaches 70 yards in 20 seconds, and in the rate of change Emma's slope is $\frac{5}{1}$ and Maggie's is $\frac{2}{1}$ and since 5 is bigger than 2 Emma is running faster.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

What is the equation that represents Maggie's line?

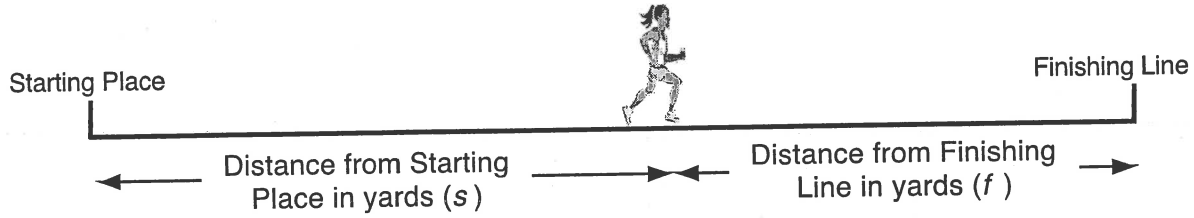
$$s = 2t + 30$$

t	1	2	3	4	5
s	30	34	36	38	40

3. Describe what happens in the race.

Maggie starts a little further than Emma and Emma is running faster than Maggie.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



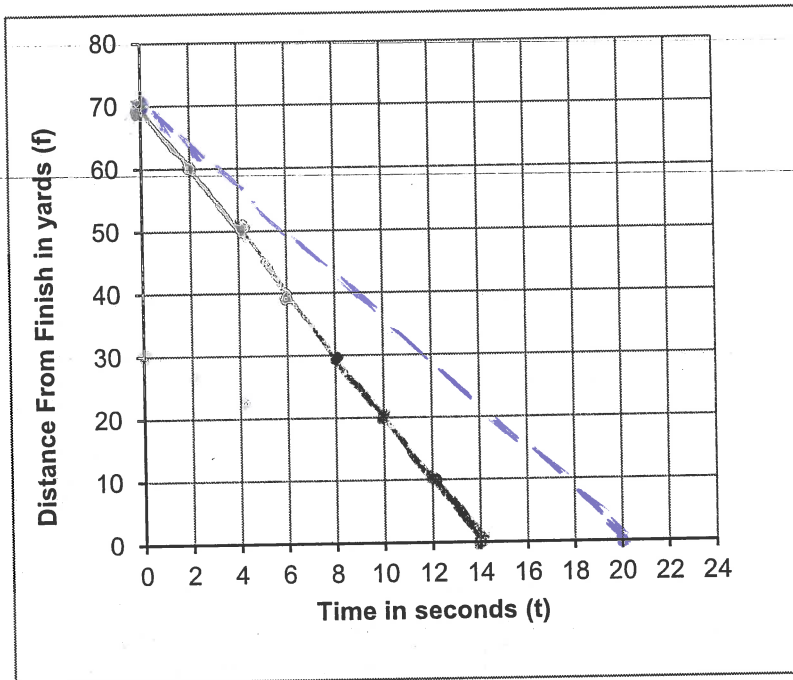
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

$$m = \frac{-20}{10} = \frac{-2}{1}$$

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = 3.5t + 70$$

Earlier this week, you did a Pre-Assessment called "The Race".

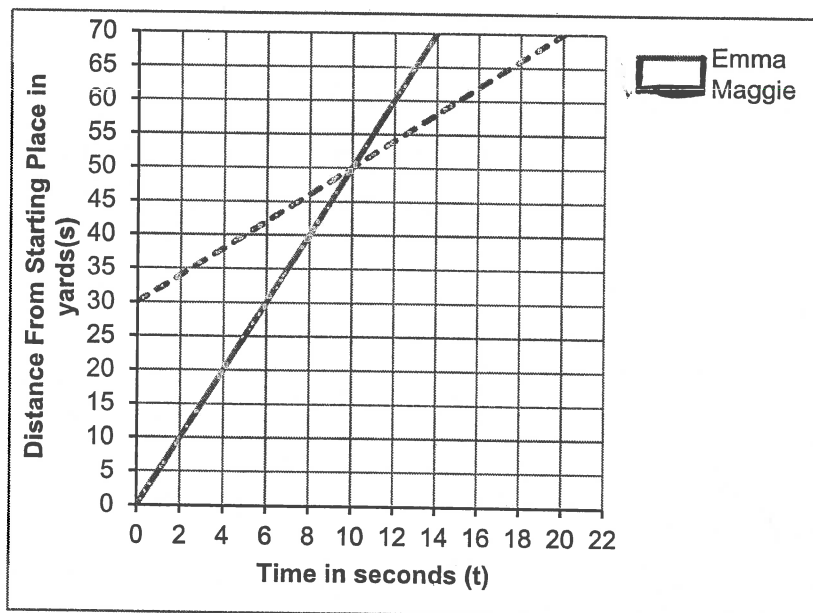
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie is running faster because she was ahead of Emma.~~ Emma is running faster because the slope is proportional then Maggie. The race for Emma lasts 14 sec as Maggie

2. Emma's line can be represented by the equation $s = 5t$.

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

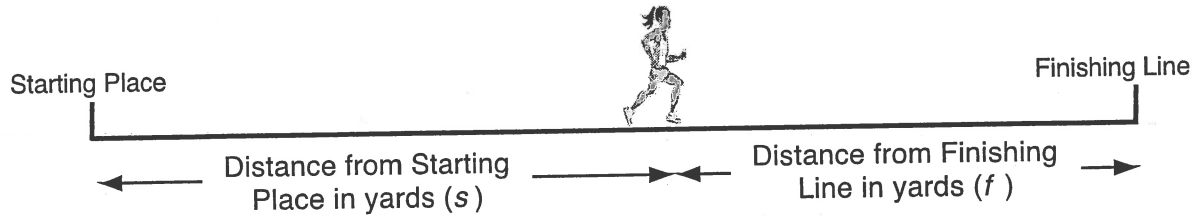
What is the equation that represents Maggie's line?

~~Maggie = $30s = 5t$~~ ~~$30s = 5t$~~ $30s = 5t$

3. Describe what happens in the race.

~~In the race Maggie runs faster than Emma because she was more distance than Emma to make Maggie faster than Emma.~~ Emma is faster than 0 seconds when starting from the place in $E(0,0)$ $M(0,30)$. After Emma slope was proportional to make her 0 sec faster. So she won.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



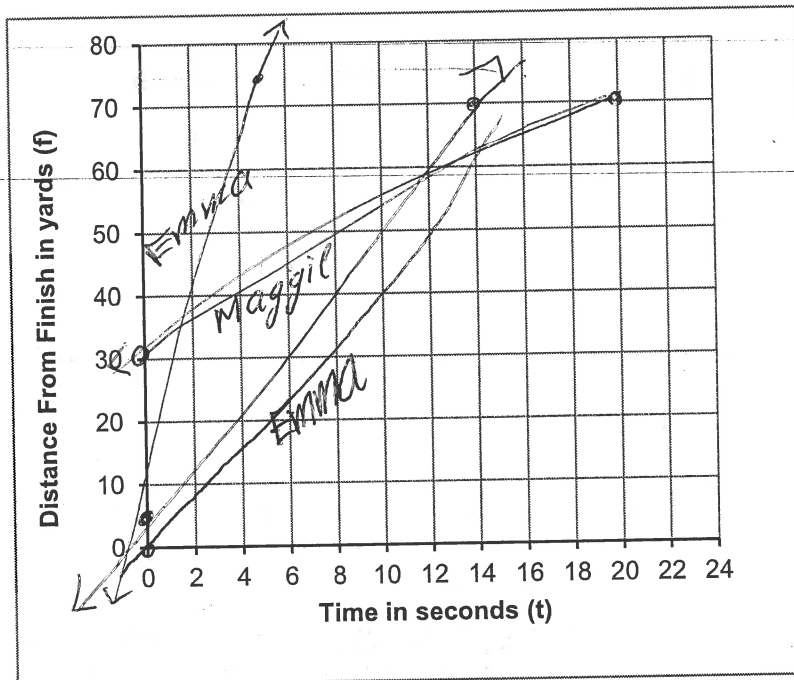
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$-5t = 70s$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

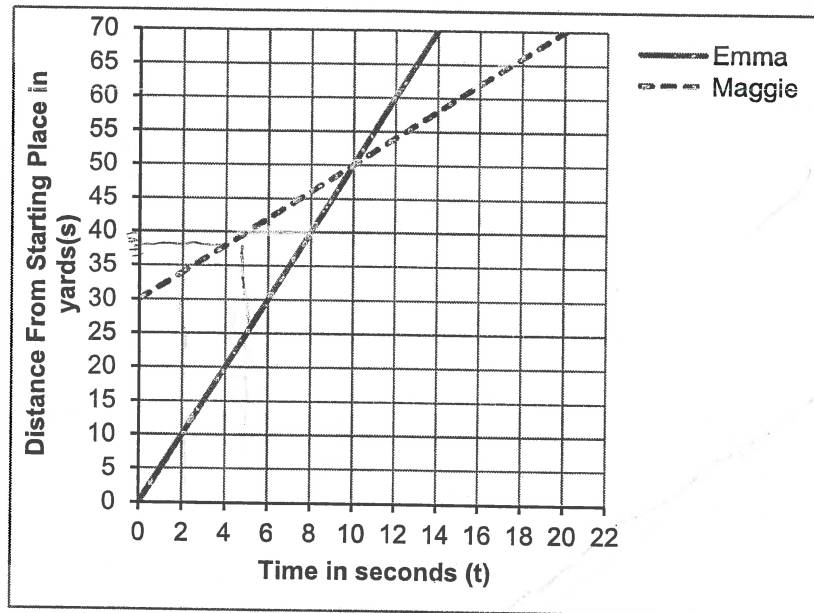
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

emma is running faster because the slope is steep

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

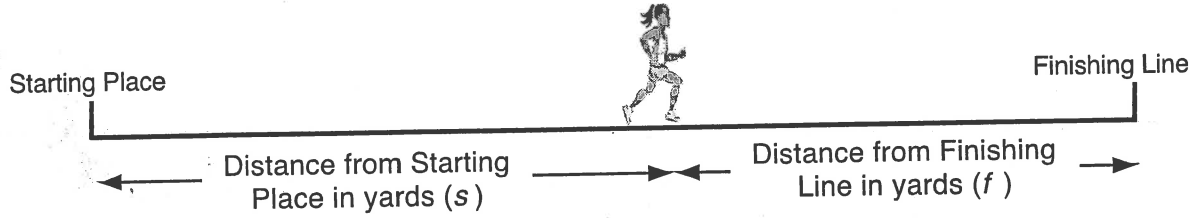
What is the equation that represents Maggie's line?

~~s = 5t + 30~~ $s = t + 4$

3. Describe what happens in the race.

maggie started running before emma but emma runs faster than maggie so she caught up

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



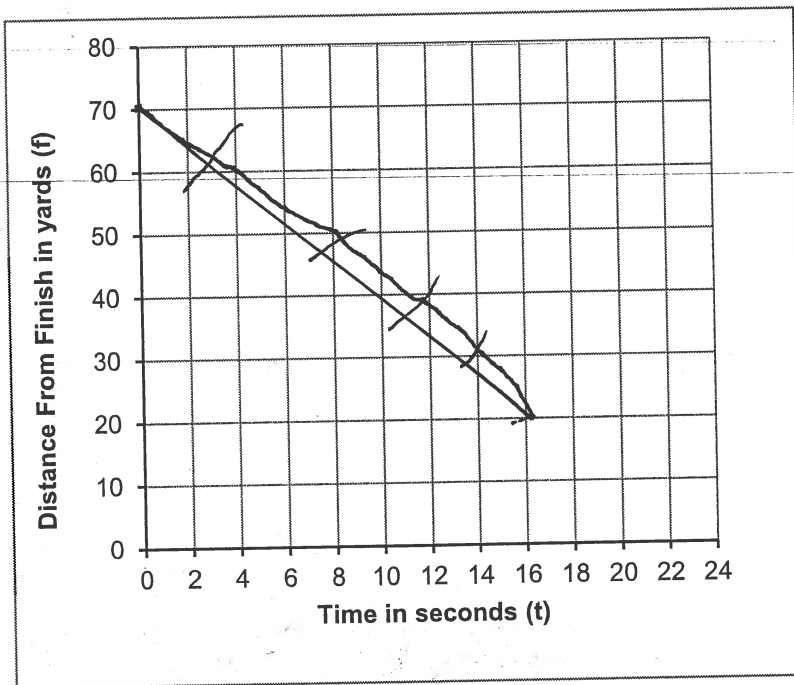
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$s = t + 4$$



Earlier this week, you did a Pre-Assessment called "The Race".

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 - ✓ How long is the race? How do you know?
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The Race

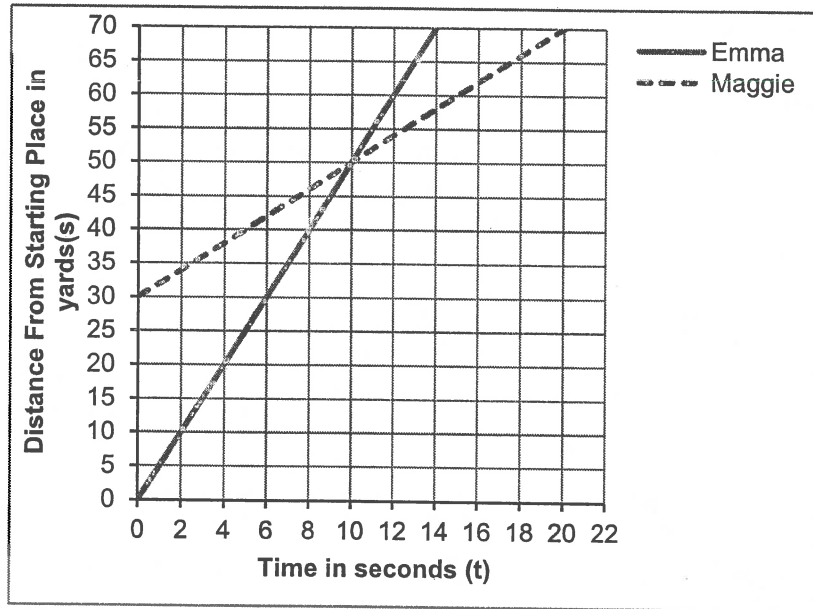
Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.

~~Emma~~

Seconds	Yards
0	0
1	5
2	10
3	15
4	20
5	25



~~Maggie~~

Seconds	Yards
0	30
1	32.5
2	35
3	37.5
4	40
5	42.5

1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie is running fastest after 5 seconds, she runs 40 yards in 5 seconds while Emma runs 25 yards in 5 seconds. she had a head start therefore she was fastest at the time.~~

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.

t is the time, in seconds, from the start of the race.

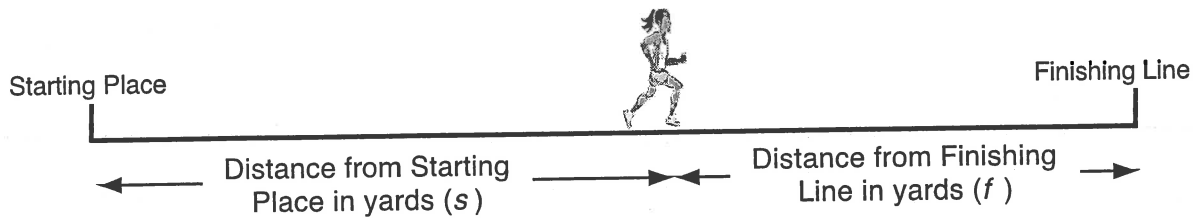
What is the equation that represents Maggie's line?

~~$s = t + 30$~~ $s = 2t + 30$

3. Describe what happens in the race.

~~Emma eventually runs faster than Maggie during the race. Maggie gets a head start, Emma eventually catches up to Maggie and passes her. Emma wins by 6 seconds.~~

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

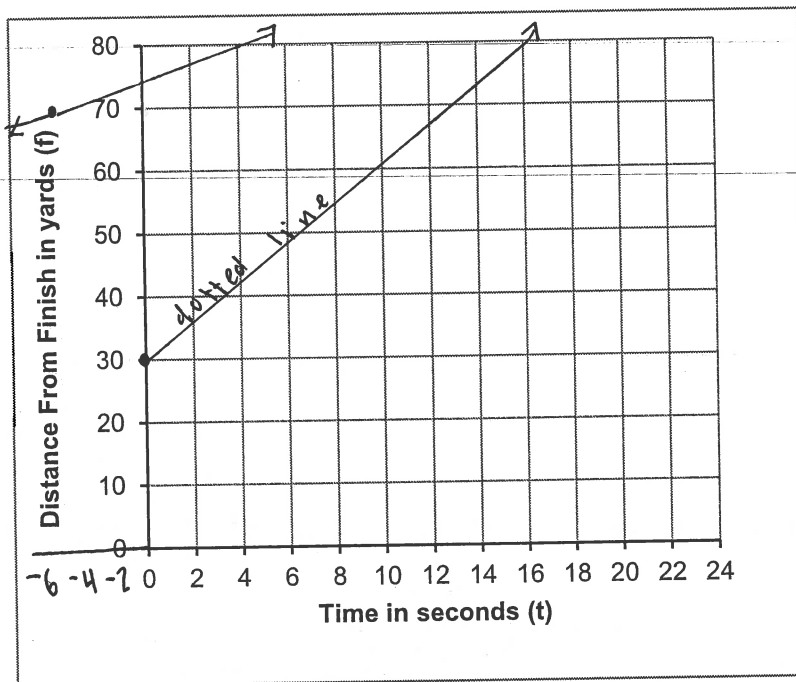


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$s = 1t + 30$$



Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

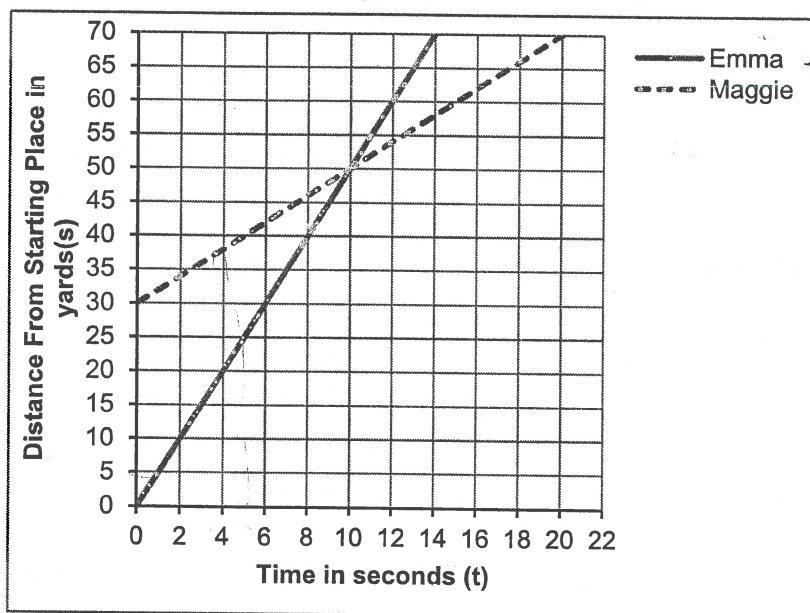
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ① Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ① Who wins the race? How far ahead are they when they cross the finish line?
 - ① How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie because she started ahead of~~
~~Emma~~ Emma because she runs 5 yards in one second while Maggie runs 2.5 yards in 1 second

2. Emma's line can be represented by the equation: $s = 5t$ s is the distance, in yards, from the Starting Place. t is the time, in seconds, from the start of the race. the race is 70 yards because that's when the graph ends

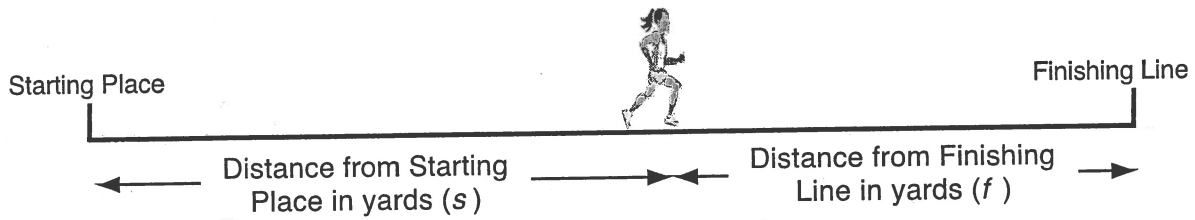
What is the equation that represents Maggie's line?

$$s = 5x - 30$$

3. Describe what happens in the race.

Emma won the race because she took less time to finish it and Maggie had ahead start

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



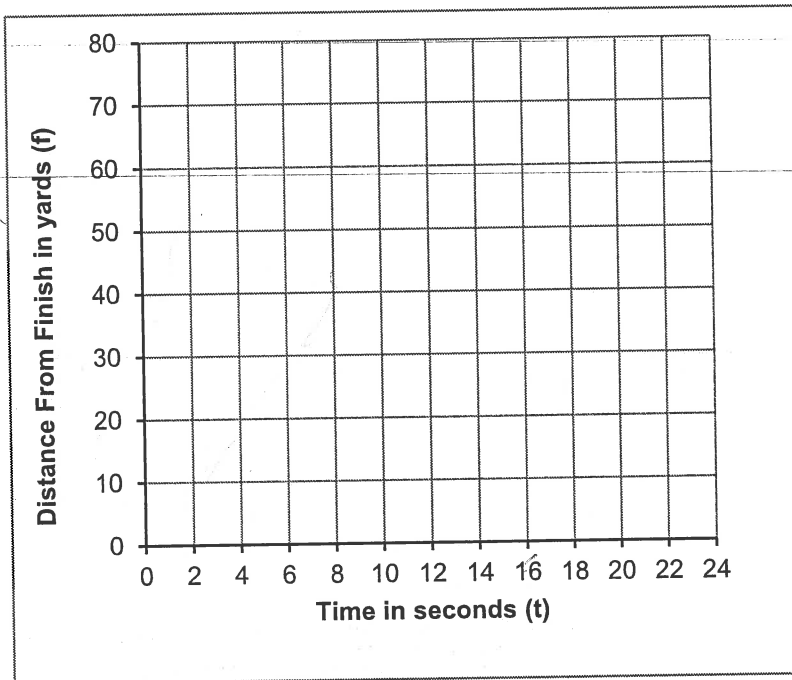
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$s = \frac{1}{2}t$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

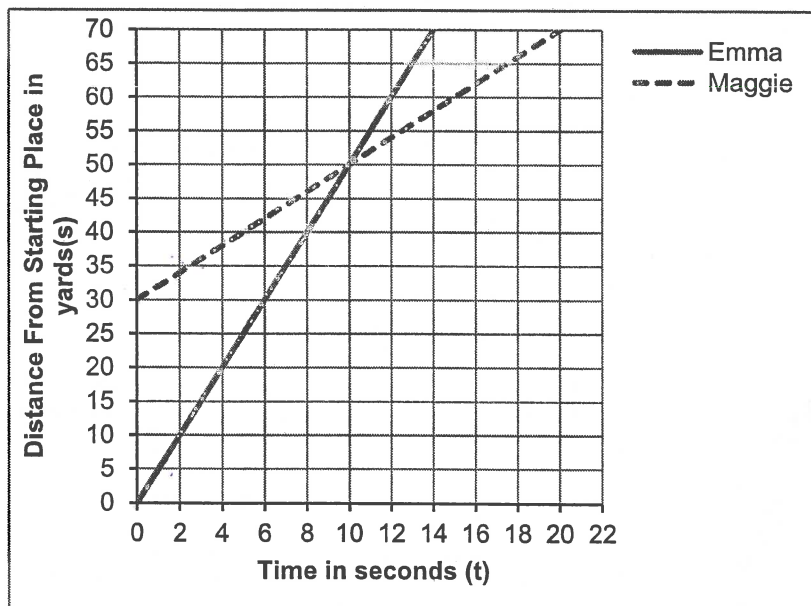
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

I think Maggie is running faster because in 5 seconds she is at 40 yards

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

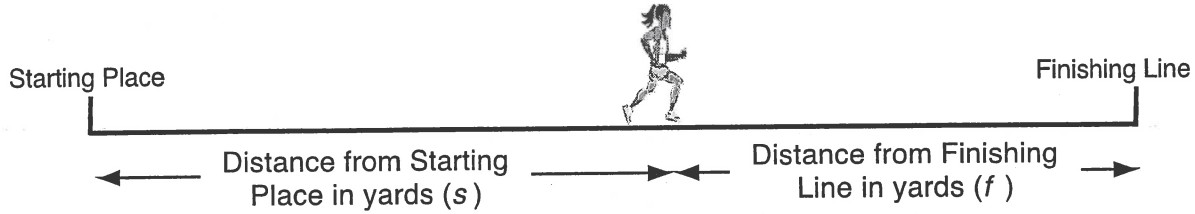
What is the equation that represents Maggie's line?

$$s = 35t$$

3. Describe what happens in the race.

Emma and Maggie cross each other at 10 seconds

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

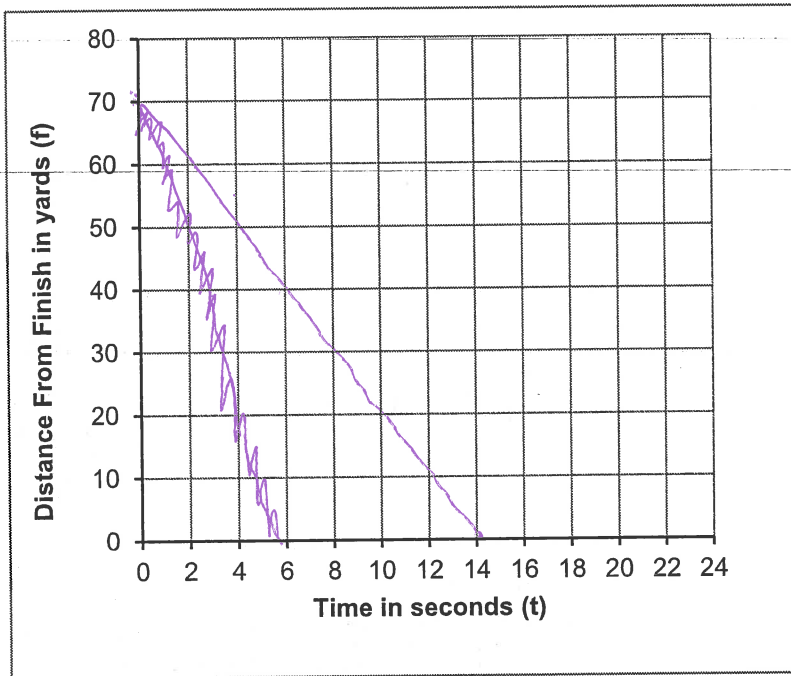


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

Earlier this week, you did a Pre-Assessment called "The Race".

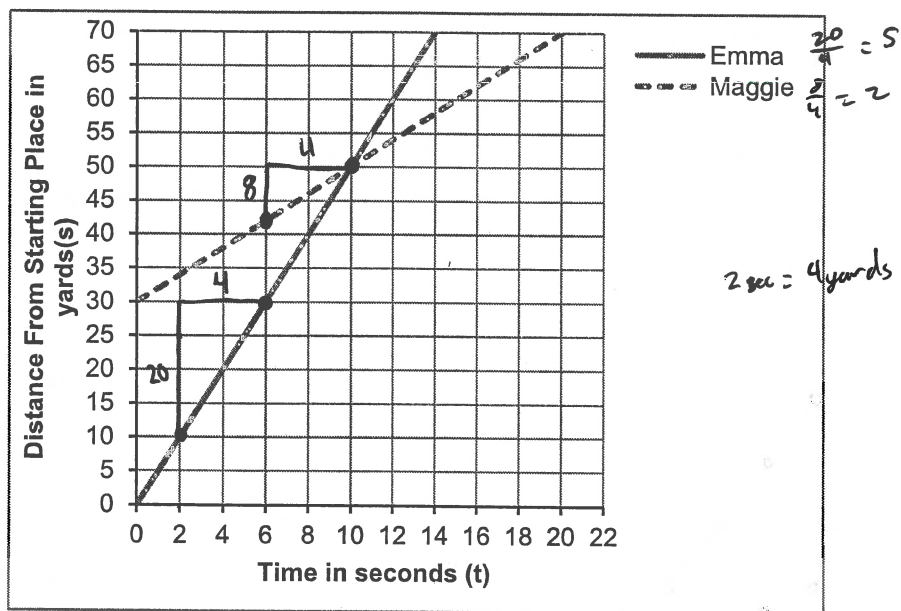
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Emma is running the fastest because her rate of proportionality is 5 and Maggie's is only 2 and her slope is steeper than Maggie's

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.

t is the time, in seconds, from the start of the race.

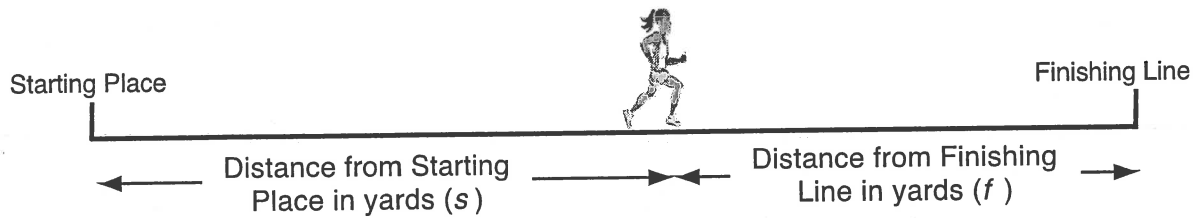
What is the equation that represents Maggie's line?

$$s = 2t + 30$$

3. Describe what happens in the race.

Maggie has a head start of 30 yards. She's in the lead for the first 10 seconds, but then that's when Emma caught up w/ her. Emma's pace is a lot faster than Maggie's and she wins. Emma crosses the finish line 6 seconds before Maggie

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.

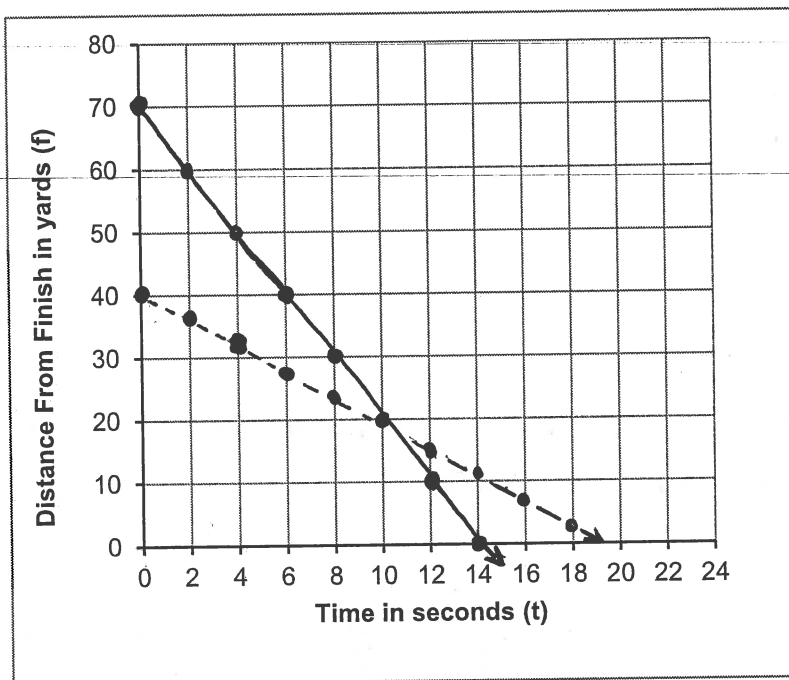


4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.
 t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = -2t + 40$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
 - ✓ For the graph on problem 4, what does the y-axis represent?
 - ✓ What representation from our Rule of 4 could help you draw a graph of the situation, when you are given an equation?

The Race

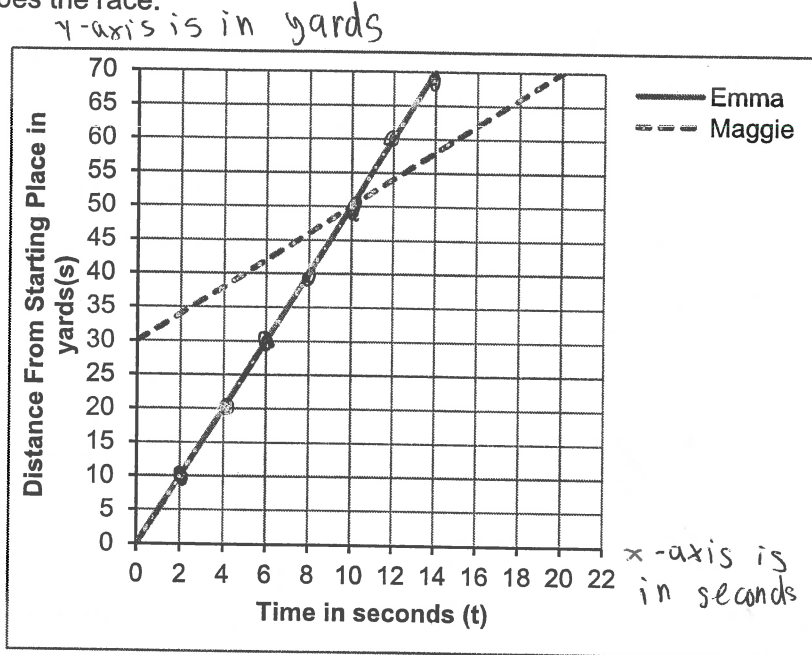
Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.

The race is 70 yards

Maggie gets a 30 yard head start



1. After five seconds, who is running the fastest? Explain your answer.

Emma is running faster because at 14 seconds she ran 70 while Maggie was still running.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

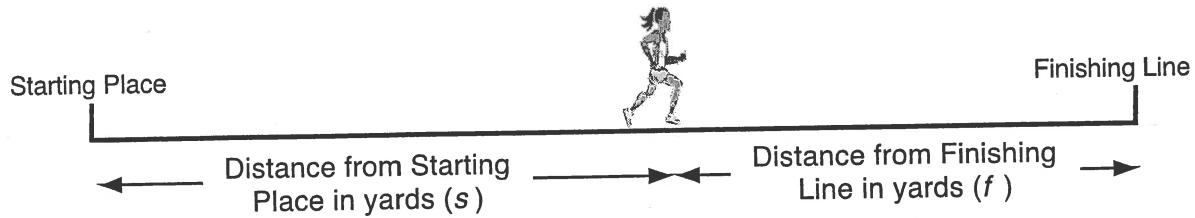
What is the equation that represents Maggie's line?

$$s = 2t$$

3. Describe what happens in the race.

Maggie starts with a 30 yard head start while Emma starts at the start line. Once they both hit 10 seconds Emma is running faster than Maggie. Then Emma finishes the race 6 seconds before Maggie.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



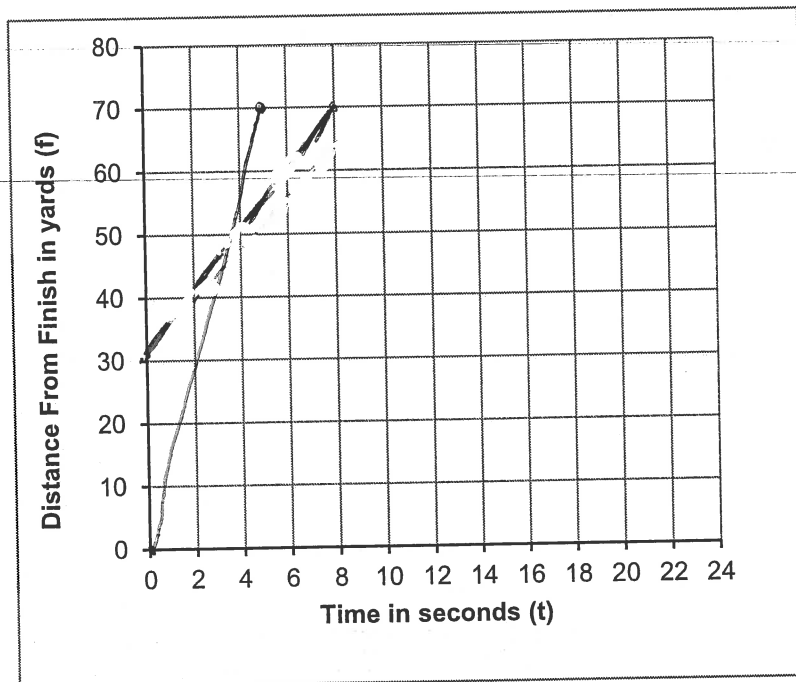
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = 8t + 70$$

Assessment

Earlier this week, you did a Pre-Assessment called "The Race".

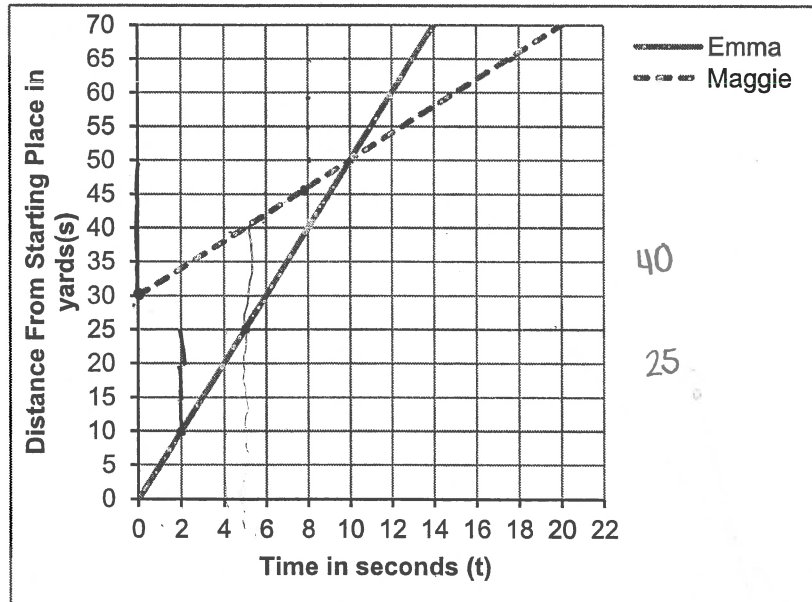
- Using a pen, go back and redo the task using what we learned and practiced this week.
- ~~Strike~~ through previous answers that you no longer want. Write your new solution next to it, or in the margin. Attach binder paper if necessary.
- Things to consider as you solve each question:
 - ✓ Where does each runner start in the race? How do you know?
 - ✓ How long is the race? How do you know?
 - ✓ Who wins the race? How far ahead are they when they cross the finish line?
 - ✓ How can you figure out the rate of each runner?
 - ✓ During the race, does Emma's or Maggie's rate (or speed) change?
 - ✓ When reading the graph, what is the scale of the x-axis and the scale of the y-axis? How can this help you?
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



I found the slope & found which one is bigger & $\frac{4}{3} = 1.33$ Emma won so she runs the fastest.

$\frac{3}{4} = .75$
 $\frac{3}{2} = 1.5$
 Emma
 winner

1. After five seconds, who is running the fastest? Explain your answer.

Emma is running the fastest because she started from the beginning & ran 25 yards while Maggie started ahead of her and only ran 10 yards.

Emma started from the beginning

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

$S =$

What is the equation that represents Maggie's line?

~~$s = 50$~~

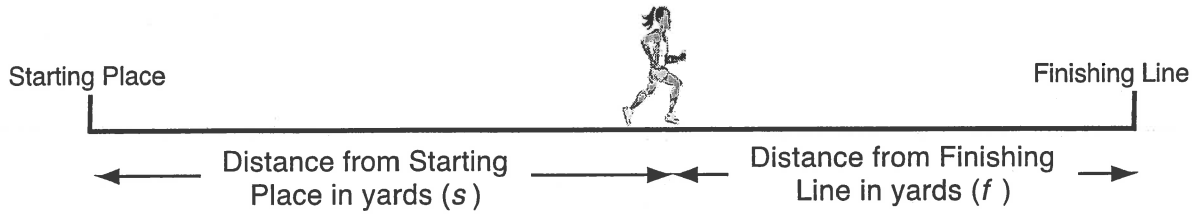
$30s = 5t$

$s = 45t$

3. Describe what happens in the race.

In the race, Emma started in the beginning and Maggie started ahead of her so she is in a further distance. When Emma started, she ran from 0 to 25 and Maggie started from 30 yards to 40 so she ran 10 yards. Emma ran more. Basically, Emma's line is steeper because she started from the beginning & Maggie didn't.

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



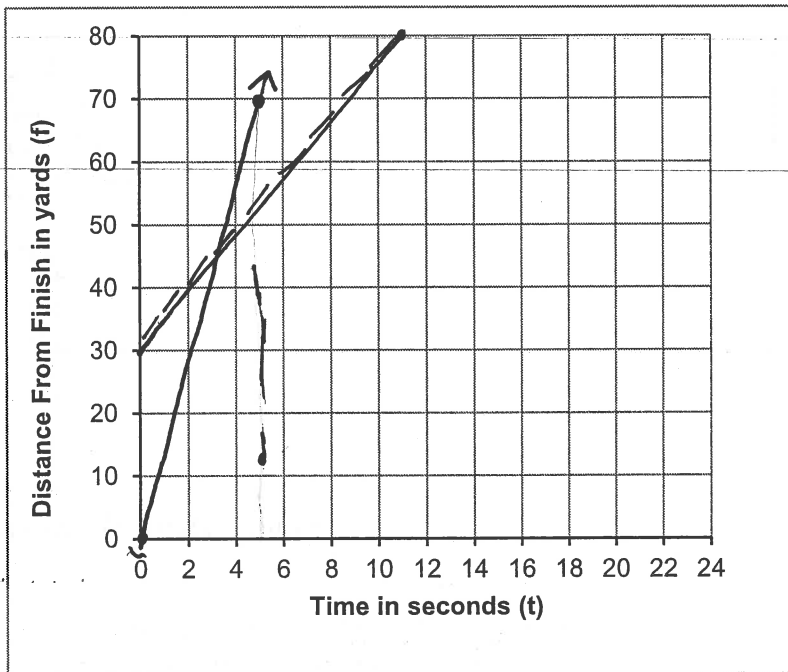
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



— Emma
- - - Maggie

On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

$$f = 50f$$

$$\begin{array}{r} 14 \\ 5 \overline{) 70} \\ \underline{-5} \\ 20 \end{array}$$

Table

-5	70
10	140
15	210
20	280

$$= 14$$

Earlier this week, you did a Pre-Assessment called "The Race".

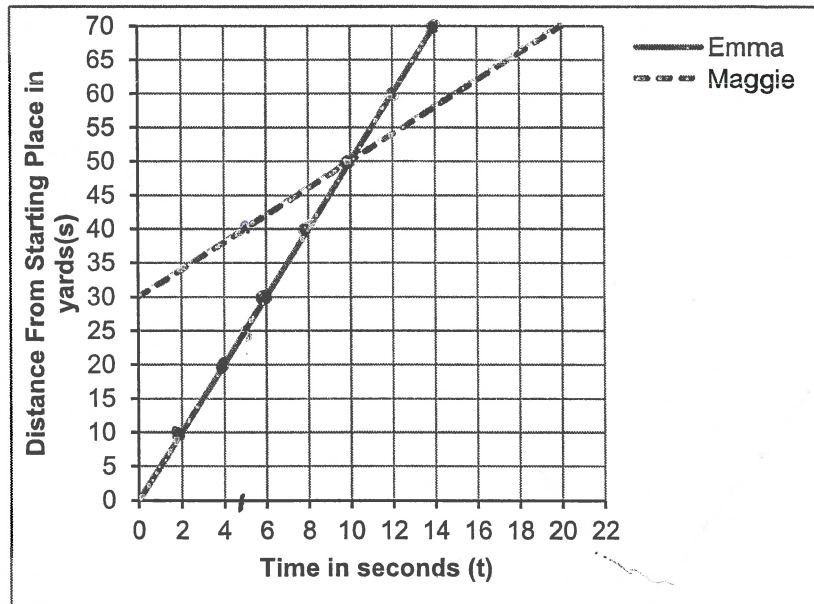
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The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

~~Maggie ran faster because she started at 30 yards~~
Maggie is faster because if you mark 5 sec Emma had 25 yards and Maggie had 40 yards in 5 sec

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.
 t is the time, in seconds, from the start of the race.

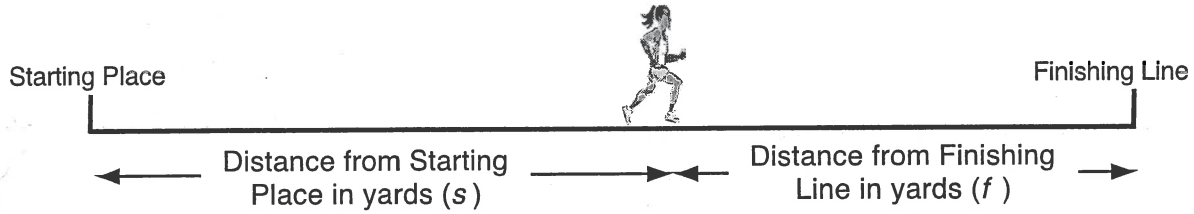
What is the equation that represents Maggie's line?

~~$s = 5x + 30$~~ $s = 5t + 30$

3. Describe what happens in the race.

~~Maggie ran first and started at 30 yards~~
at 5 seconds, Maggie had 40 to go first and she had a 30 yard start but at 10 sec both Emma and Maggie are meeting and Emma won first because she ended at 14 sec ~~at~~ but Maggie ended in 20 sec

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



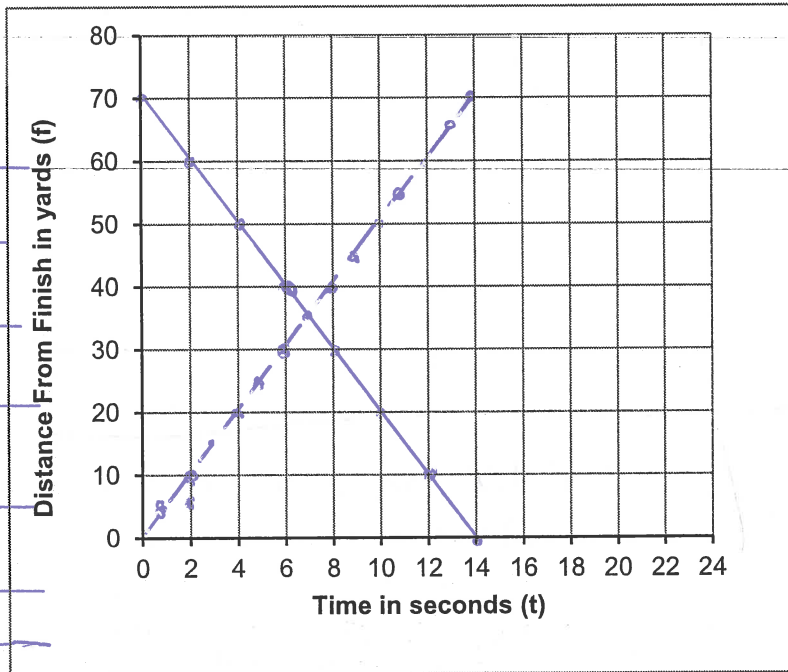
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

f is the distance, in yards, from the **Finishing Line**.

t is the time, in seconds, from the beginning of the race.

a. Plot this line on the graph.



— Emma
- - - Maggie

On this graph the distance is measured from the runner to the finish, not the start.

b. Add a line to the graph that represents Maggie's race.

c. What is the equation of this second line?

~~$S = 5t$~~ $S = 5t$
↑
PLUS

continue

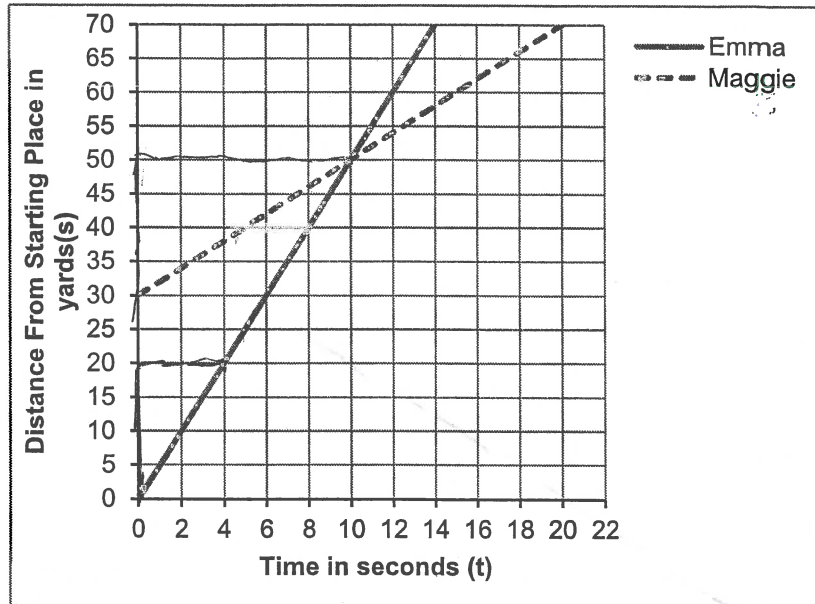
X	Y		
		11	59
1	5	12	60
2	10	13	65
3	15	14	70
4	20		
5	25		
6	30		
7	35		
8	40		
9	45		
10	50		

The Race

Maggie and Emma race each other along a straight running track.

Maggie starts some distance ahead of Emma.

The graph describes the race.



1. After five seconds, who is running the fastest? Explain your answer.

Maggie, she is over 37 yards and Emma is at 25. Maggie is running faster.

2. Emma's line can be represented by the equation:

$$s = 5t$$

s is the distance, in yards, from the Starting Place.

t is the time, in seconds, from the start of the race.

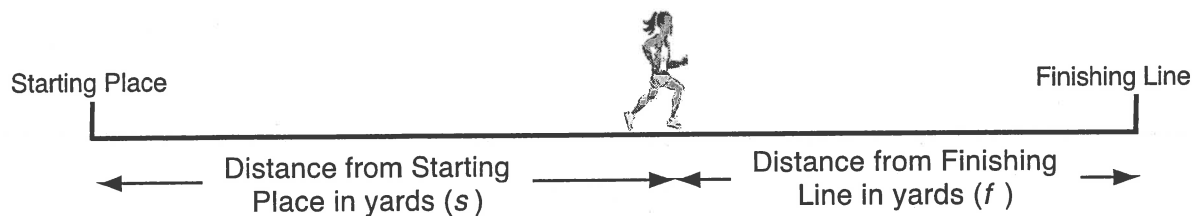
What is the equation that represents Maggie's line?

$$s = 2t$$

3. Describe what happens in the race.

At 10 seconds they come together and Maggie wins the race after the head start

The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



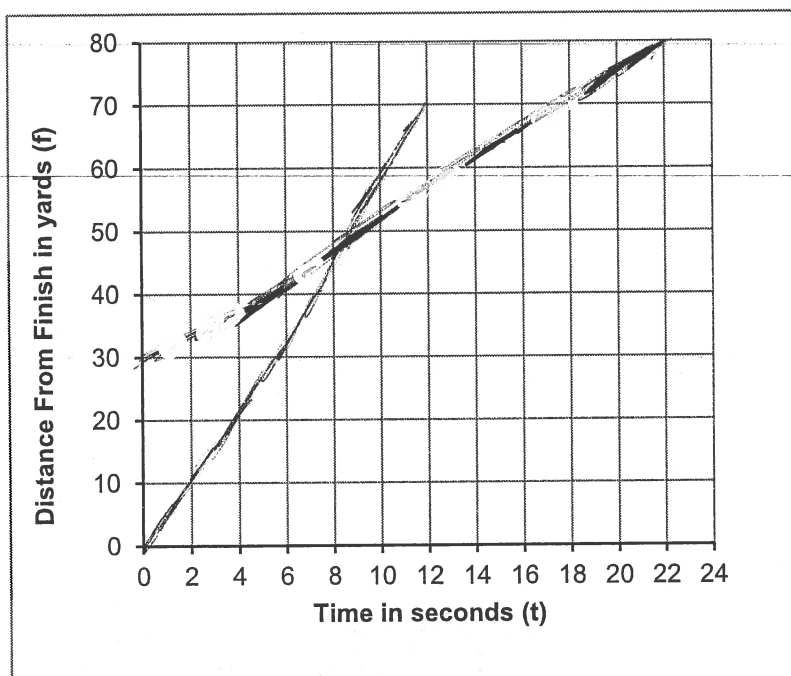
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c. What is the equation of this second line?

$$f = 2t + 70$$

Assessment

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