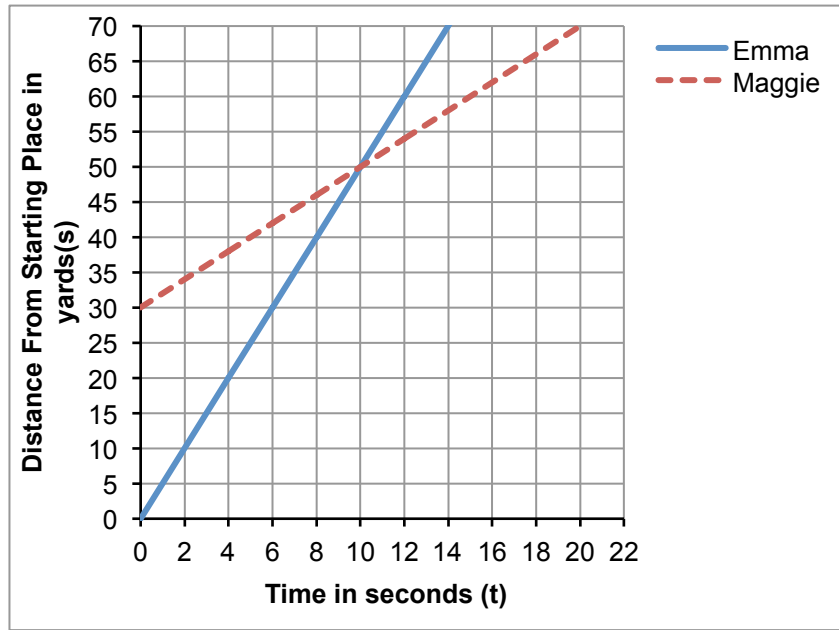


The Race

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 5 seconds, who is running the fastest? Explain your answer.

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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?

.....

3. Describe what happens in the race.

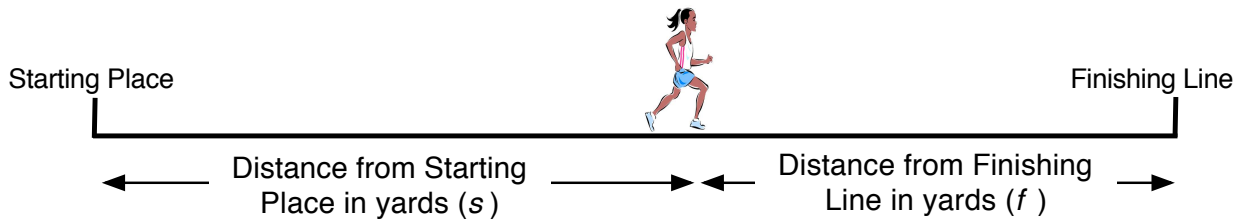
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The diagram below shows the distance a runner is from the Starting Place and from the Finishing Line.



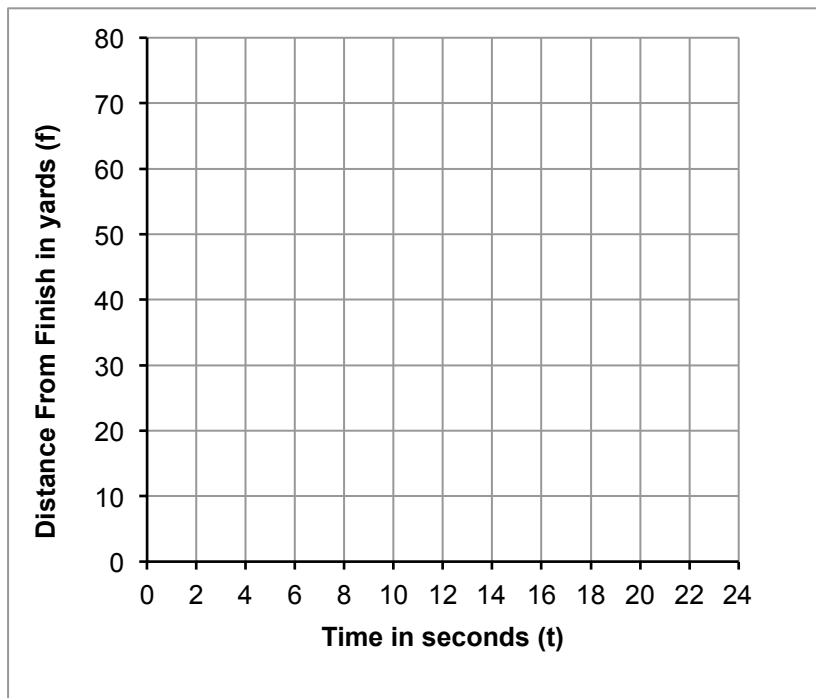
4. The following equation can also be used to describe Emma's race:

$$f = -5t + 70$$

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?

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