

**STUDY GUIDE**

Directions: Select the term from the vocabulary bank that best matches the description and write the letter in the blank next to the description.

Vocabulary Bank:

- |              |                |
|--------------|----------------|
| acceleration | constant speed |
| run          | slope          |
| speed        | velocity       |

1. \_\_\_\_\_ The rate of change of position over time.
2. \_\_\_\_\_ Describes an object that travels the same distance each second.
3. \_\_\_\_\_ The steepness of a graphed line.
4. \_\_\_\_\_ The horizontal change on a graph as an object moves between two points.
5. \_\_\_\_\_ A vector quantity that is the rate at which velocity changes over time.
6. \_\_\_\_\_ A measurement of both the speed and direction of an object's motion.

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Vocabulary Bank:

average speed	displacement
Instantaneous speed	reference point
rise	vector

7. \_\_\_\_\_ An object's total distance divided by the total time it travelled.
  
8. \_\_\_\_\_ An object's total distance from its starting point.
  
9. \_\_\_\_\_ The speed of an object at a specific instant in time.
  
10. \_\_\_\_\_ Something that must be described with both a size and direction.
  
11. \_\_\_\_\_ The vertical change on a graph as an object moves between two points.
  
12. \_\_\_\_\_ A starting point used to describe the position of an object.

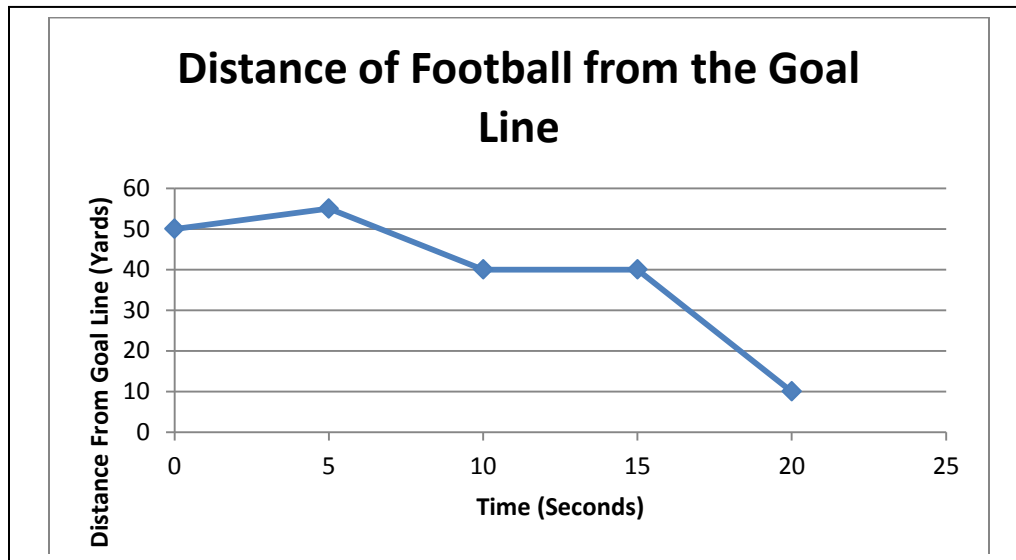
Directions: select the best answer for each question.

13. \_\_\_\_\_ In a **compass lab**, you face 162 degrees and then walk 112 paces. Your activity describes a

14. \_\_\_\_\_ In a **skateboard lab** you travel 45 meters in 25 seconds. What is your average speed?

15. FREE BEE!!!

Examine the chart below and then answer questions # 16 – 18.



16. \_\_\_\_\_ When was the ball farthest away from the goal line?

17. \_\_\_\_\_ During which period was the ball's speed the greatest?

18. \_\_\_\_\_ How long was the ball stationary during the times shown on the graph?

Use the following information to answer questions # 19 & 20.

**You walk 7 m north. Then you face west and walk another 8 m.**

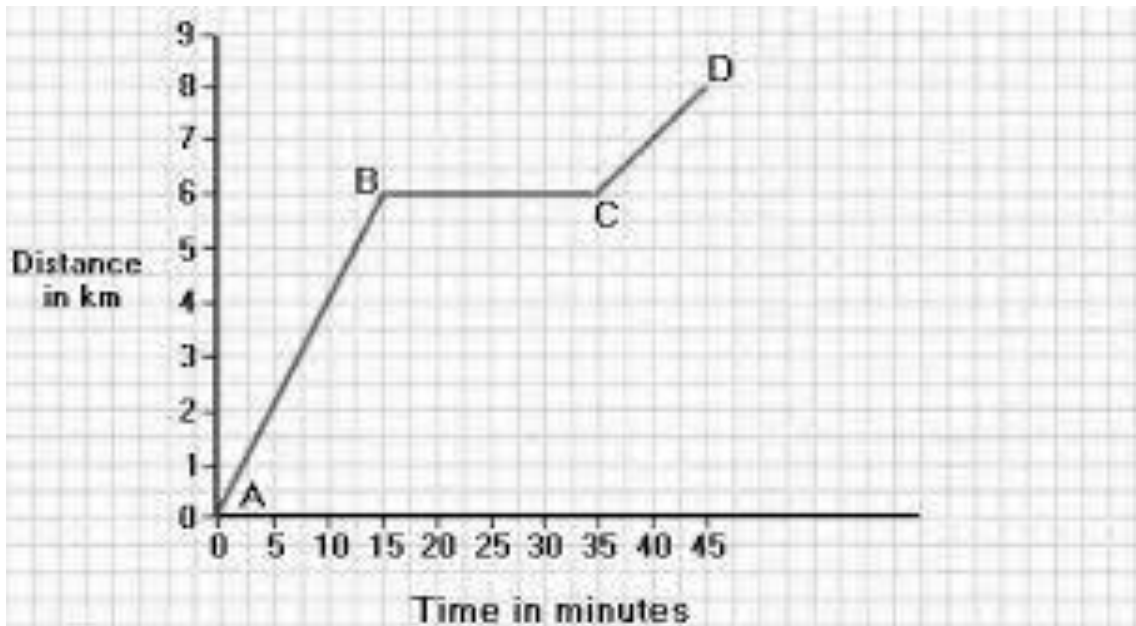
Hint: use the space below to draw a simple map.

19. \_\_\_\_\_ Your total distanced travelled is

EXTRA CREDIT!!!

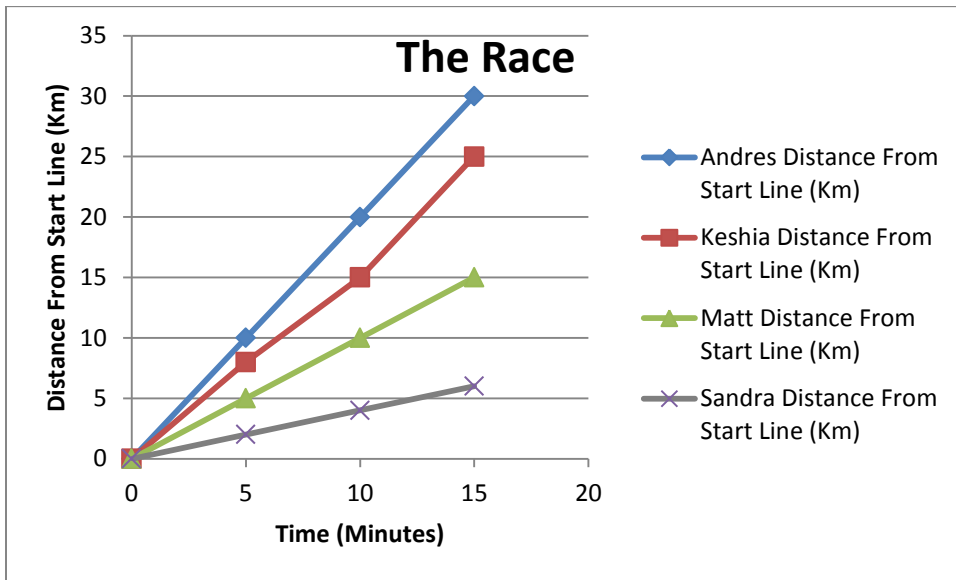
20. \_\_\_\_\_ What is your displacement from the point of origin? (hint:  $A^2 + B^2 = C^2$ ).

Use the figure below to answer questions 21, 22, & 23.



21. \_\_\_\_\_ Which best describes the motion of the object from 10 min to 35 min?
22. \_\_\_\_\_ What is the average speed of the object for the 45 min shown in this graph?
23. \_\_\_\_\_ What is the position of the object at 15 min?

Use the figure below to answer questions 24 & 25.



24. \_\_\_\_\_ What is Andres's average speed?

25. \_\_\_\_\_ Which runner has the fastest average speed?