Interpreting Motion Graphs

Distance Time Graphs
www.cazoommaths.com

Horizontal line shows stop

Steeper gradient shows faster speed

Sloped line shows constant speed back towards start

Sloped gradient shows constant speed

Curve upwards shows acceleration

Curve downwards shows deceleration
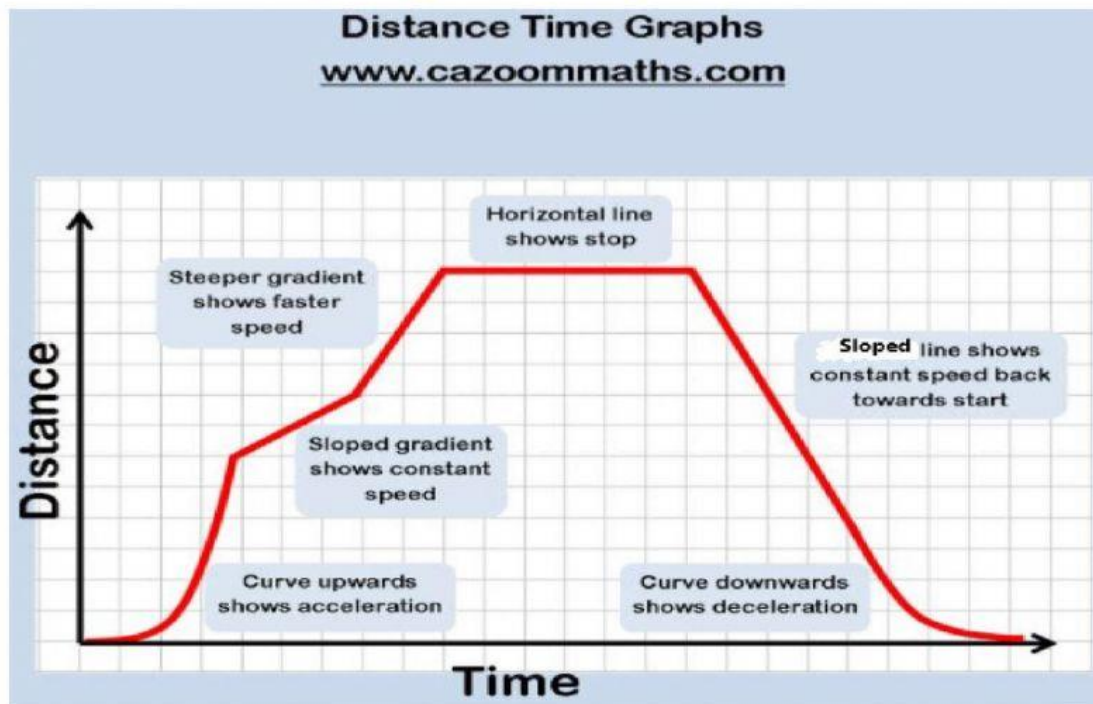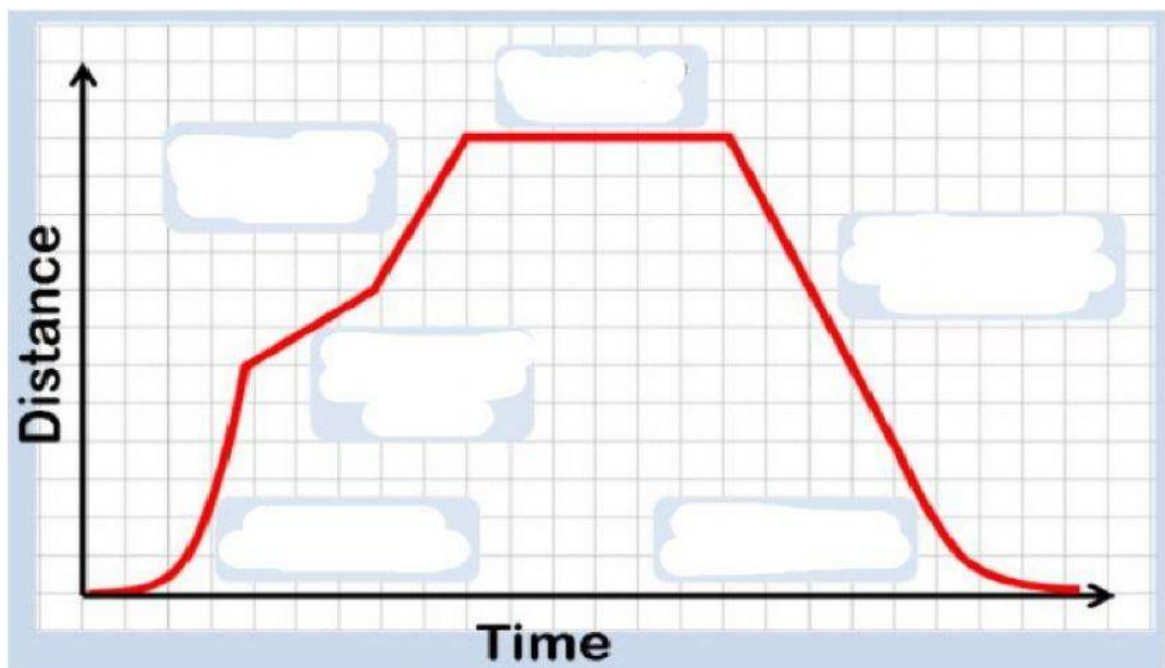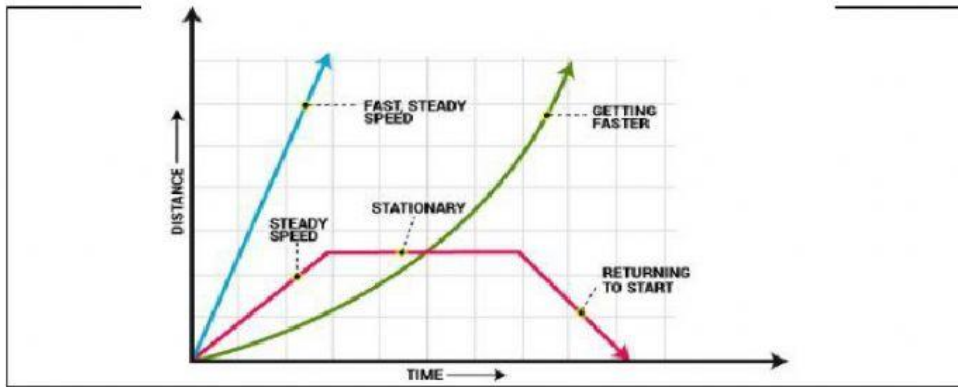
Part I

interpreting graphs

Use the graph above to complete the missing information inside the boxes
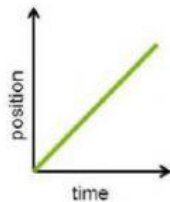
Part II

Multiple Choice
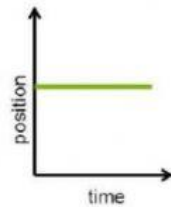
1. This position vs time graph (speed) represents	answer
a) **Object is not moving is stationary** b) object is speeding c) constant speed	

2. This position vs time graph (speed) represents	answer
a) **Constant speed or steady speed** b) accelerating c) not moving	
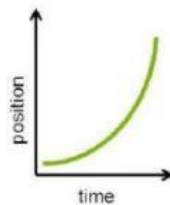
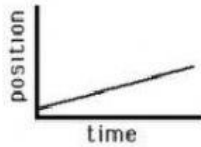| 3. This position vs time graph (speed) represents	answer
a) **Rest** b) accelerating/ getting faster up c) slowing down	

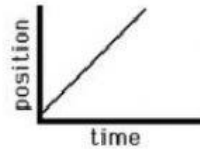**4.** These two graphs represent constant speed
Which graph is faster, the left or the right graph?

a) **Left graph**   b) **Right graph**

answer

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5)

- **Speed** only has **magnitude**
- **Velocity** has **magnitude and direction**

Write speed or velocity

5 m/s _____

5 m/s North _____

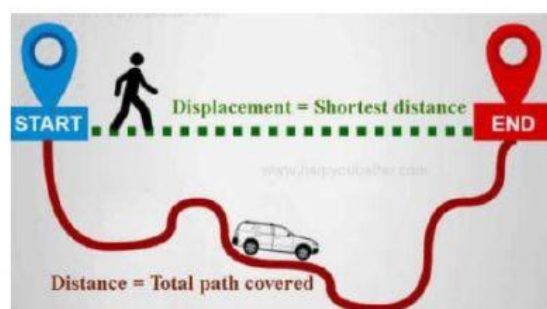40 kilometer per hour _____

40 kilometer per hour South _____

456 miles/second _____

456 miles/second going West _____

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6)
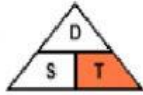

What is displacement? _____

What is distance? _____

Use this digram to complete questions 7, 8, and 9.

Distance = Speed x Time

$$Time = \frac{Distance}{Speed}$$

$$Speed = \frac{Distance}{Time}$$

7) **What is the formula to find the Distance?**

Distance	=		x	

8) **What is the formula to find the Time of travel?**

Time = ---------------

9) **What is the formula to find the Speed?**

Speed = ----------------

10)

You drove a **distance of 48 miles** and the **time you took was 6 hours**.

What was your speed?

d= 48 miles

t= 6 hours

S= -------- = ---------------- =