Graphing Constant Velocity: Abbey Road

Necessary Background Knowledge

Scalar	Vector
Distance	Displacement
Speed	Velocity

Forward: Initial Position:_____ Final Position:_____Time_____
Distance:_____ Displacement:_____
Calculate Speed: Calculate Velocity:

 Make quantitatively accurate position-time and velocity-time graphs in the space below.
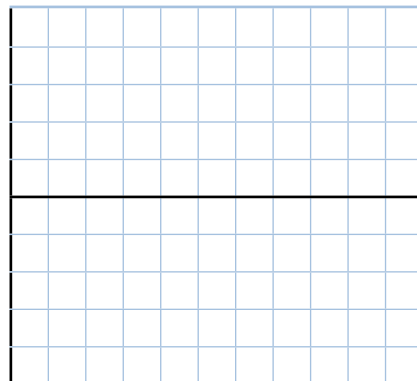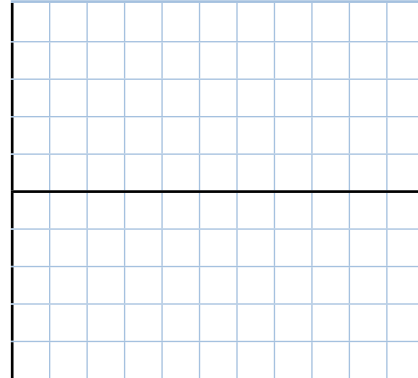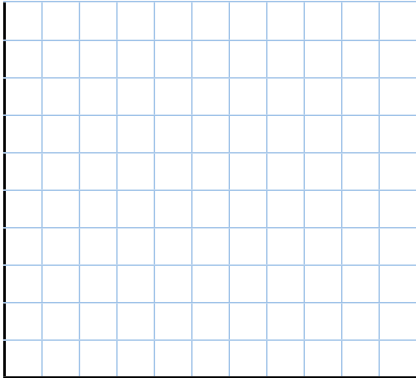
Mark the initial and final positions on the graph. Calculate the displacement for the entire trial from the position-time graph.

Graphically represent the displacement for the entire trial on the graph. Calculate the displacement from the graphical representation.

Backward: Initial Position:_____ Final Position:_____Time_____
Distance:_____ Displacement:_____
Calculate Speed: Calculate Velocity:

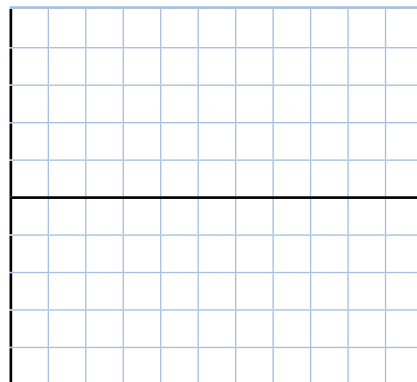Make quantitatively accurate position-time and velocity-time graphs in the space below.

Mark the initial and final positions on the graph. Calculate the displacement from the position-time graph for the time interval t = _____ s to t = _____ s.

Graphically represent the displacement for the time interval t = _____ s to t = _____ s. on the graph. Calculate the displacement from the graphical representation.

Forward Fast: Initial Position:_____ Final Position:_____Time_____
Distance:_____ Displacement:_____
Calculate Speed: Calculate Velocity:

Make quantitatively accurate position-time and velocity-time graphs in the space below.
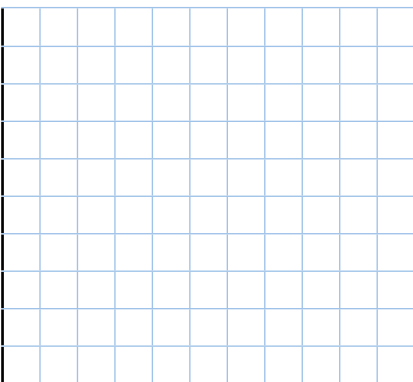
Mark the initial and final positions on the graph. Calculate the displacement from the position-time graph for the time interval t = _____ s to t = _____ s.

Graphically represent the displacement for the time interval t = _____ s to t = _____ s. on the graph. Calculate the displacement from the graphical representation.

Forward-Backwards: Initial Position:_____ Final Position:_____Time_____
Distance:_____ Displacement:_____
Calculate Speed: Calculate Velocity:

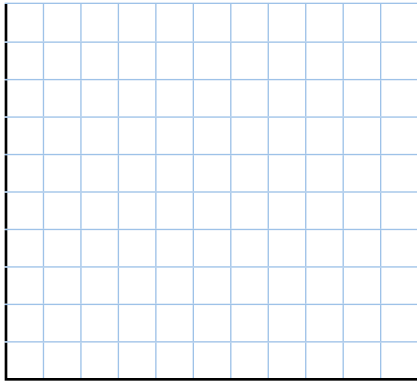 Make quantitatively accurate position-time and velocity-time graphs in the space below.

Mark the initial and final positions on the graph. Calculate the displacement from the position-time graph for the time interval t = _____ s to t = _____ s.

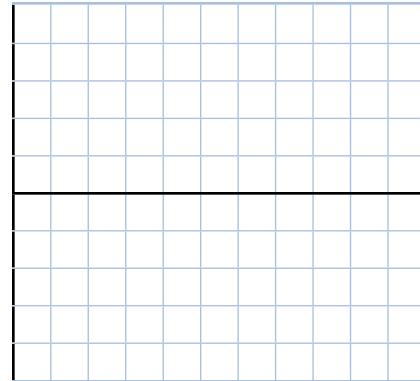Graphically represent the displacement for the time interval t = _____ s to t = _____ s. on the graph. Calculate the displacement from the graphical representation.

Questions
1. What was the approximate total **distance** traveled in the first three situations?

2. What was the approximate total **displacement** in the first three situations?

3. What was the approximate total **distance** traveled in the last situation?

4. What was the approximate total **displacement** in the last situation?

5. Do any of the trials have the same **speed**? Which ones? How do you know?

6. Do any of the trials have the same **velocity**? Which ones? How do you know?

7. What does it mean to have positive displacement? Negative displacement?

8. What does it mean to have positive velocity? Negative velocity?