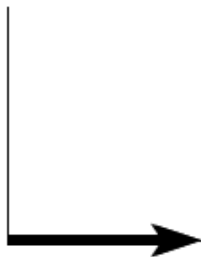


MOTION GRAPH

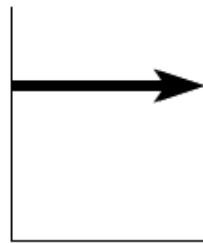
Review

Select Your Team

This TP goes along with 1: Motion Worksheet – Interpreting Motion Graphs



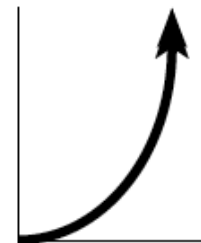
A



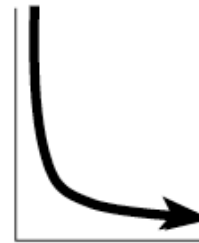
B



C



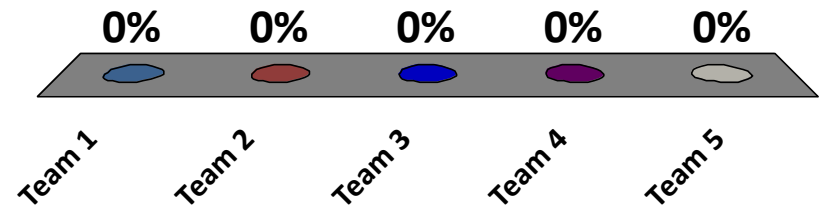
D



E

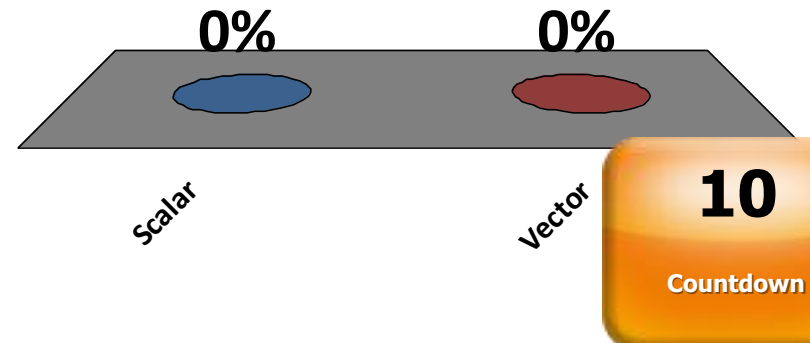
Please select a Team.

1. Team 1
2. Team 2
3. Team 3
4. Team 4
5. Team 5



Lets start easy: *Speed*

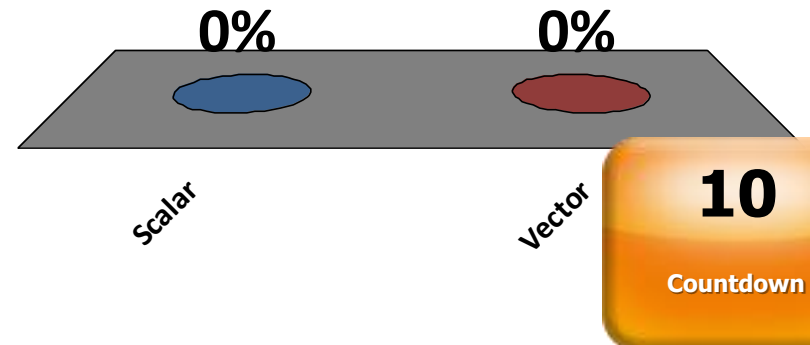
- ✓ 1. Scalar
- 2. Vector



Lets start easy: *Acceleration*

1. Scalar

✓ 2. Vector

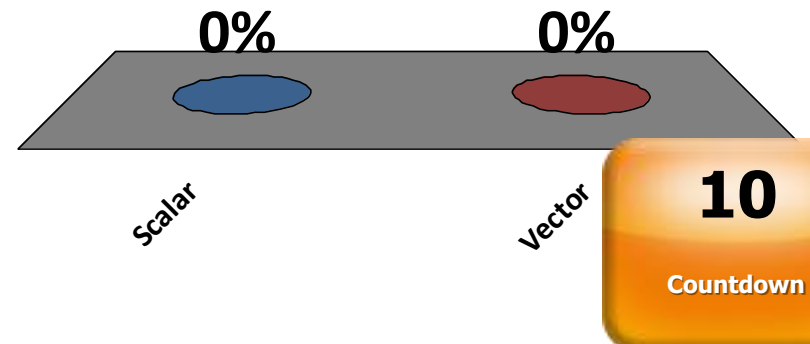


Lets start easy:

Displacement

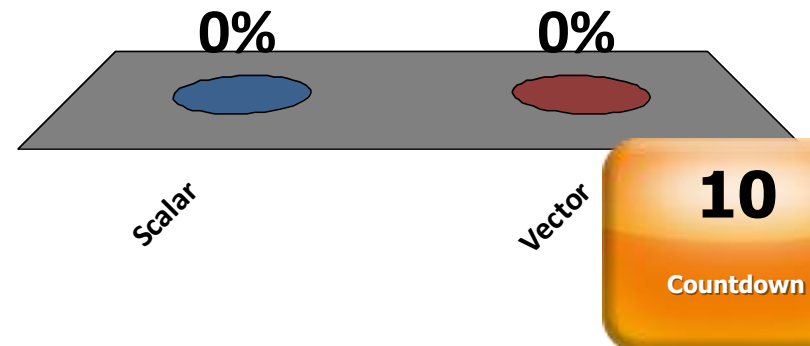
1. Scalar

✓ 2. Vector



Lets start easy: *Distance*

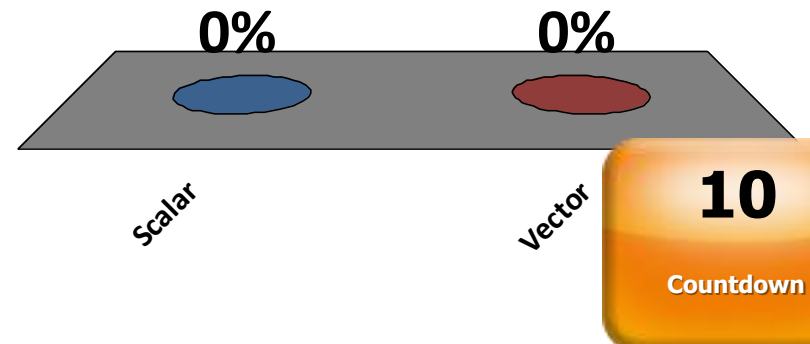
- ✓ 1. Scalar
- 2. Vector



Lets start easy: *Velocity*

1. Scalar

✓ 2. Vector



Team Scores

475 Team 2

466.67 Team 3

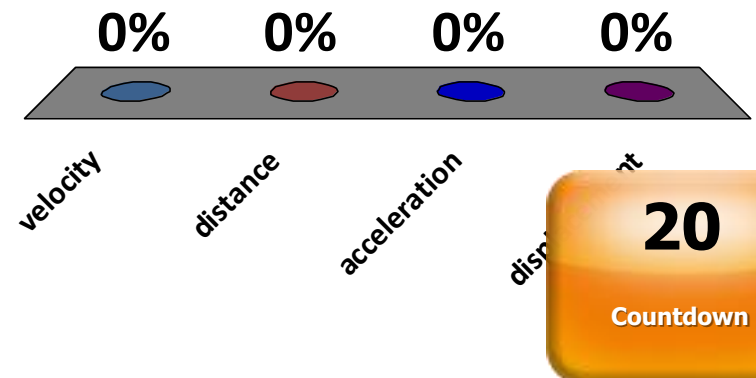
400 Team 4

375 Team 1

333.33 Team 5

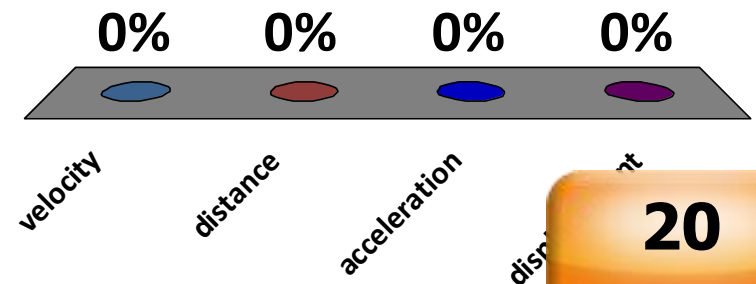
The slope of a position-time graph indicates an objects ...

- ★ 1. velocity
- 2. distance
- 3. acceleration
- 4. displacement



The slope of a velocity-time graph indicates an objects ...

1. velocity
2. distance
- ★ 3. acceleration
4. displacement



Team Scores

650 Team 2

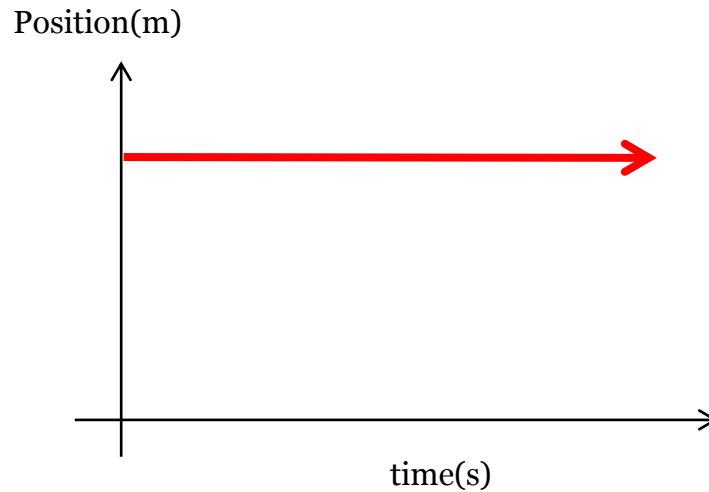
600 Team 3

483.33 Team 4

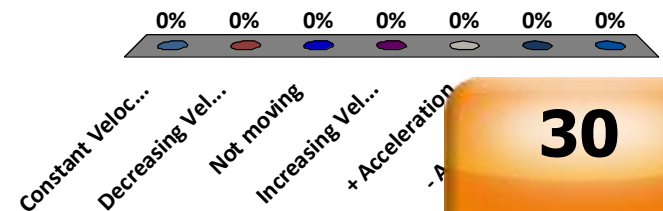
475 Team 1

375 Team 5

Use the phrase to describe the graph. There may be more than 1 correct answer.



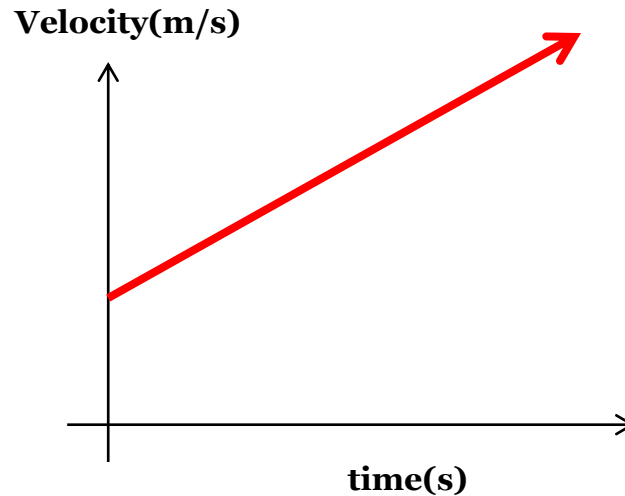
- ✓ 1. **Constant Velocity**
- 2. **Decreasing Velocity**
- ✓ 3. **Not moving**
- 4. **Increasing Velocity**
- 5. **+ Acceleration**
- 6. **- Acceleration**
- 7. **Getting Further away.**



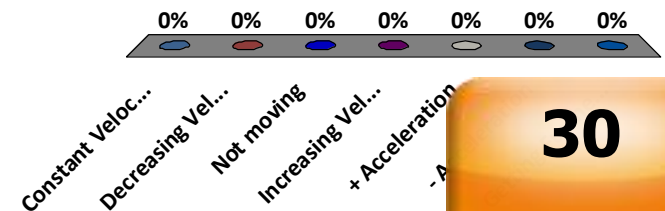
30

Countdown

Use the phrase to describe the graph. There may be more than 1 correct answer.



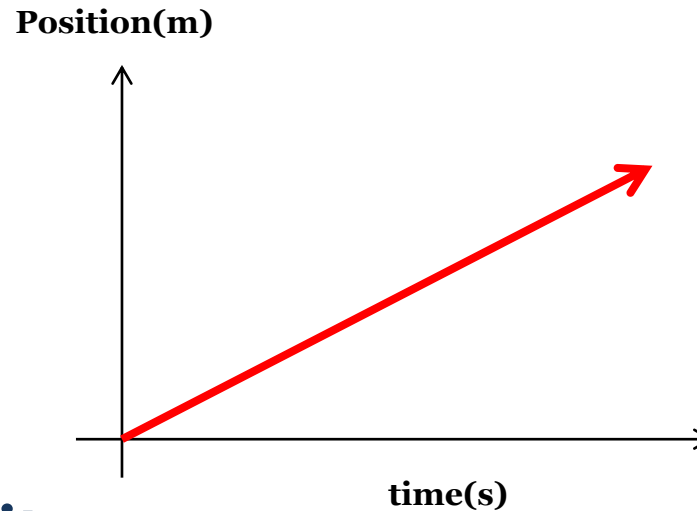
1. **Constant Velocity**
2. **Decreasing Velocity**
3. **Not moving**
- ✓ 4. **Increasing Velocity**
- ✓ 5. **+ Acceleration**
6. **- Acceleration**
- ✓ 7. **Getting Further away.**



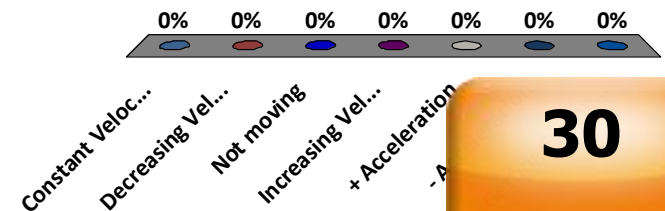
30

Countdown

Use the phrase to describe the graph. There may be more than 1 correct answer.



- ✓ 1. **Constant Velocity**
- 2. **Decreasing Velocity**
- 3. **Not moving**
- 4. **Increasing Velocity**
- 5. **+ Acceleration**
- 6. **- Acceleration**
- ✓ 7. **Getting Further away.**



30
Countdown

Team Scores

925 Team 2

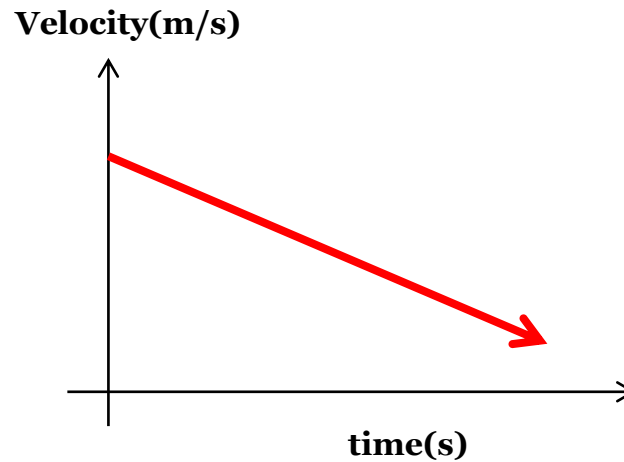
900 Team 3

758.33 Team 4

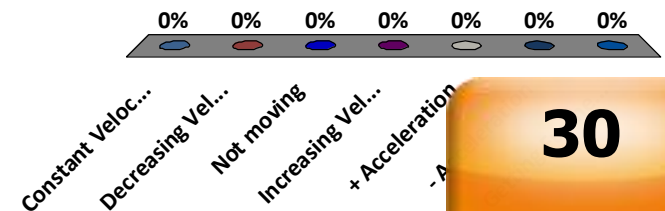
725 Team 1

658.33 Team 5

Use the phrase to describe the graph. There may be more than 1 correct answer.

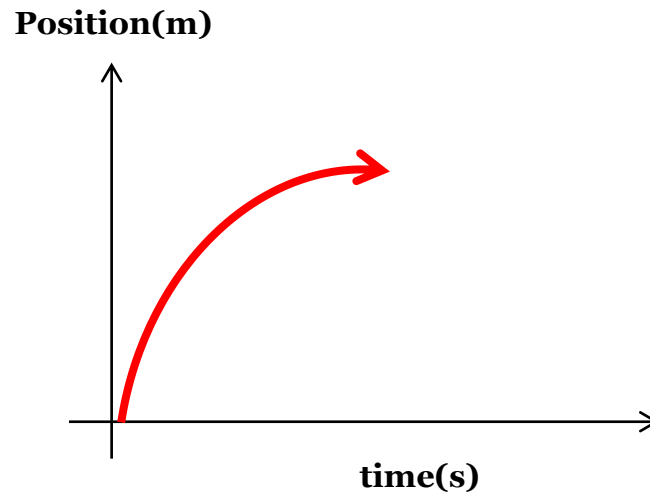


1. **Constant Velocity**
- ✓ 2. **Decreasing Velocity**
3. **Not moving**
4. **Increasing Velocity**
5. **+ Acceleration**
- ✓ 6. **- Acceleration**
- ✓ 7. **Getting Further away.**

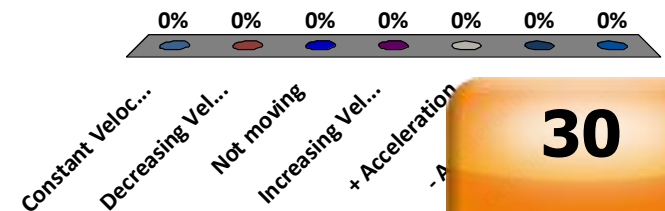


30
Countdown

Use the phrase to describe the graph. There may be more than 1 correct answer.



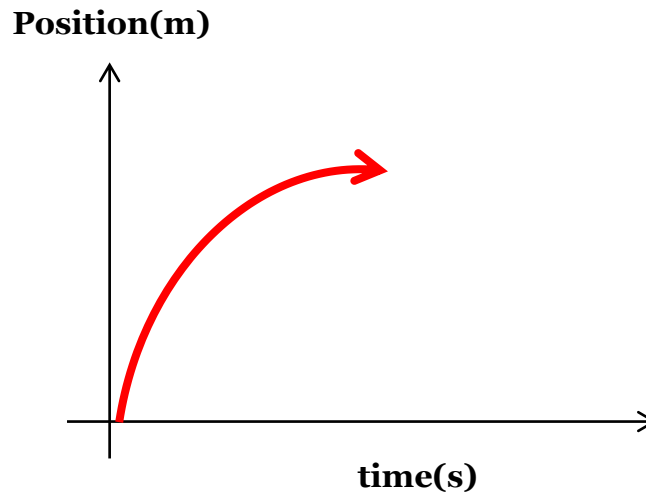
1. Constant Velocity
- ✓ 2. Decreasing Velocity
3. Not moving
4. Increasing Velocity
5. + Acceleration
- ✓ 6. - Acceleration
- ✓ 7. Getting Further away.



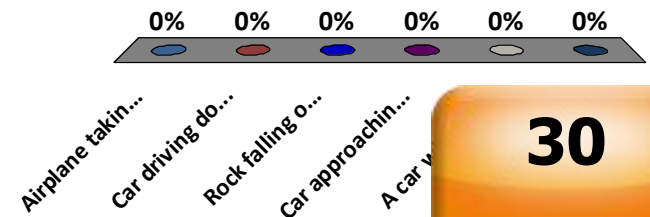
30

Countdown

Use the phrase to describe the graph. There may be more than 1 correct answer.



1. Airplane taking off.
2. Car driving down the highway.
3. Rock falling off a cliff.
- ✓ 4. Car approaching a red light.
5. A car which is stopped.
6. A student initially traveling at 2m/s that accelerates to pass a slower student in the hall.



30

Countdown

Team Scores

1200 Team 2

1166.67 Team 3

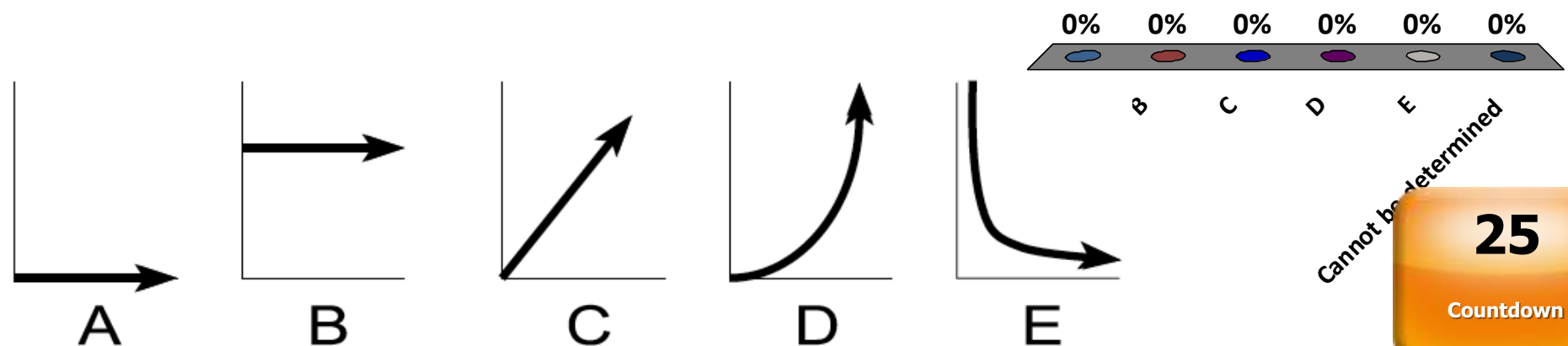
975 Team 4

925 Team 1

891.67 Team 5

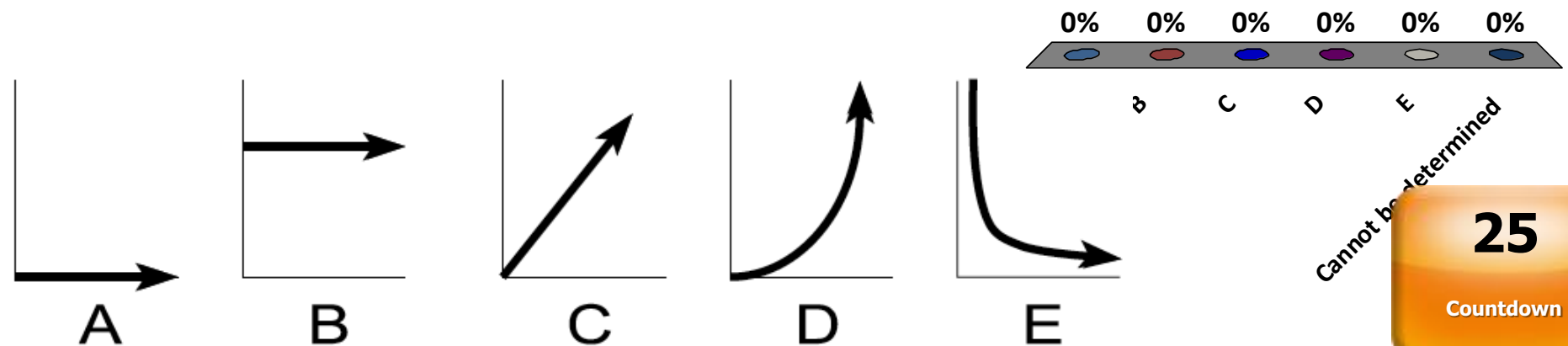
Which shape fits a position-time graph of an object moving at constant (non-zero) speed?

1. A
2. B
- ✓ 3. C
4. D
5. E
6. Cannot be determined



Which shape fits a velocity-time graph of an object moving at a constant non-zero speed?

1. A
- ✓ 2. B
3. C
4. D
5. E
6. Cannot be determined

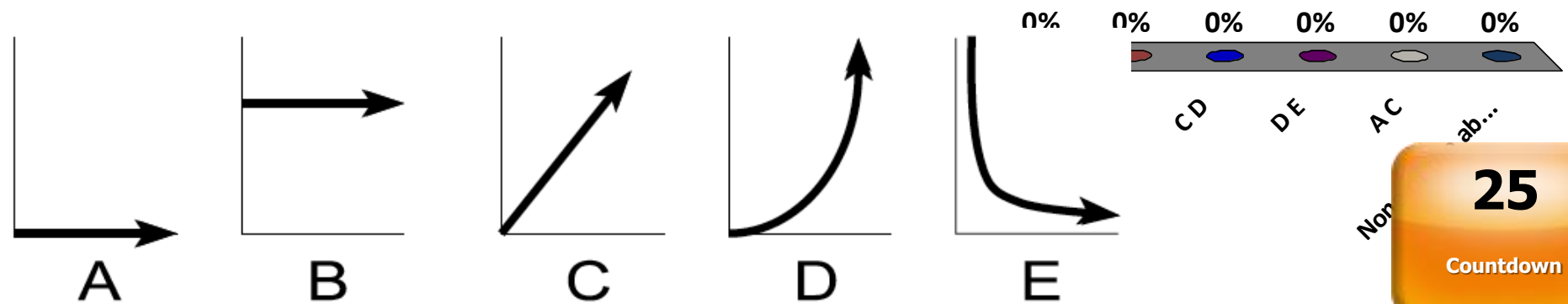


25

Countdown

Which two shapes fit a position-time graph of a motionless object?

- ✓ 1. A B
- 2. B C
- 3. C D
- 4. D E
- 5. A C
- 6. None of the above



Team Scores

441.67 Team 1

400 Team 2

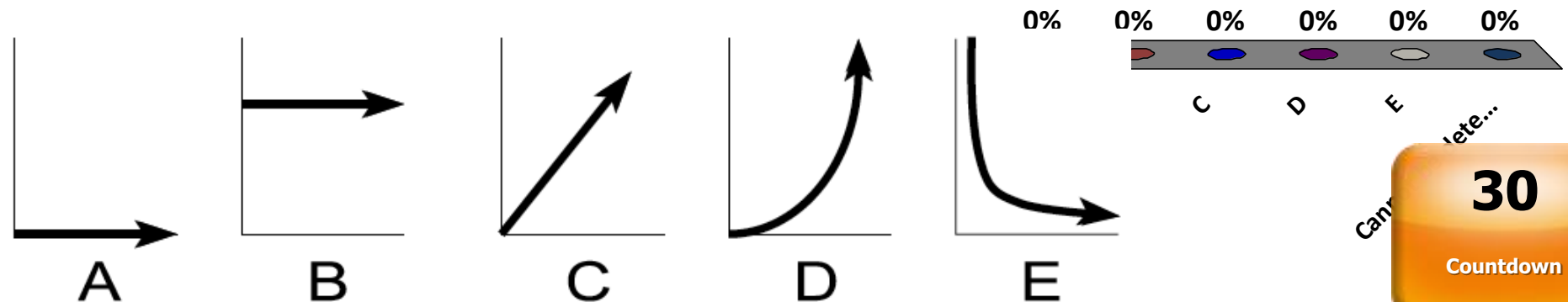
300 Team 3

300 Team 5

300 Team 4

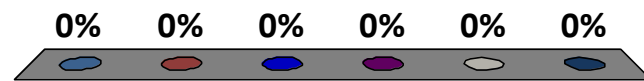
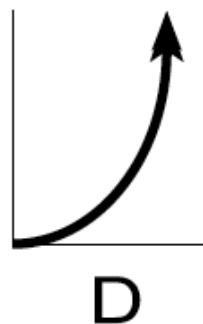
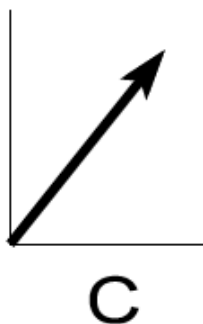
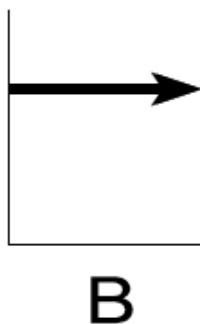
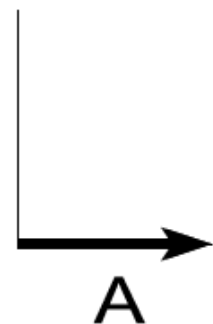
Which shape fits a velocity-time graph of a motionless object?

- ✓ 1. A
- 2. B
- 3. C
- 4. D
- 5. E
- 6. Cannot be determined



Which shape fits a position-time graph of an object that is moving at a constant velocity?

1. A
2. B
- ✓ 3. C
4. D
5. E
6. Cannot be determined



A B C D E
Cannot be determined

30
Countdown

Which shape fits a velocity time graph of an object that is speeding up at a constant velocity?

1. A
- ✓ 2. B
3. C
4. D
5. E
6. Cannot be determined

The image shows five velocity-time graphs labeled A through E. Graph A is a horizontal line on the x-axis. Graph B is a horizontal line above the x-axis. Graph C is a straight line starting from the origin and increasing linearly. Graph D is a curve starting from the origin and increasing with an increasing gradient. Graph E is a curve starting high on the y-axis and decreasing towards the x-axis. Above the graphs is a progress bar with six colored circles and '0%' labels above each. Below the progress bar are the letters A, B, C, D, E, and 'determined' written diagonally. In the bottom right corner, there is an orange rounded rectangle containing the number '30' and the word 'Countdown' below it.

0%	0%	0%	0%	0%	0%
A	B	C	D	E	determined

30
Countdown

Team Scores

975 Team 1

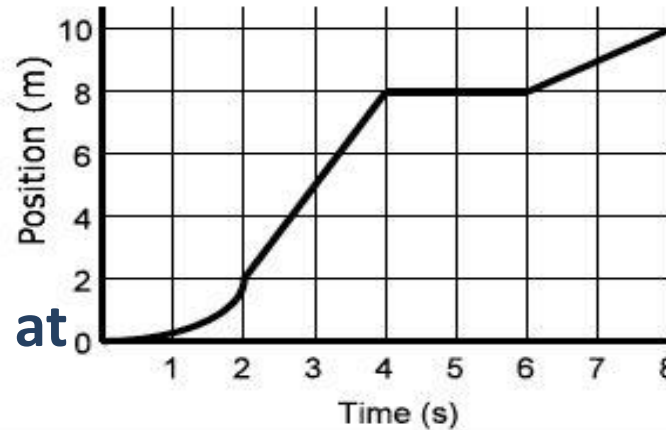
925 Team 2

858.33 Team 5

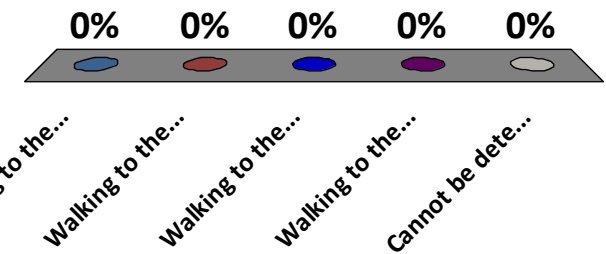
816.67 Team 4

608.33 Team 3

A woman walks away from a starting position in a straight line.
A position-time graph for her motion is shown to the right.
Describe the woman's motion between 2 and 4 s.



1. Walking to the east at a constant speed.
2. Walking to the west at a constant speed
3. Walking to the east at an increasing speed
4. Walking to the west at an increasing speed
5. Cannot be determine

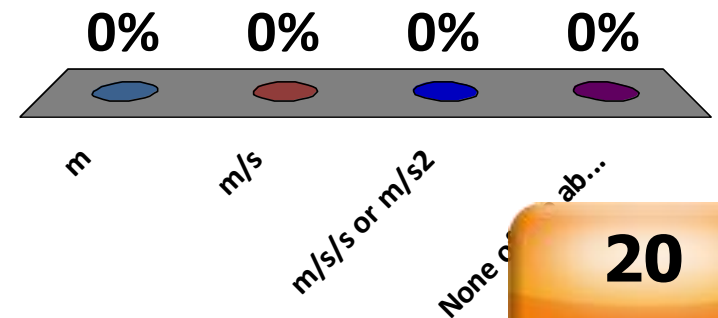


45

Countdown

Which of the following units is equivalent to (meters per second) per second, and are the units of acceleration?

1. m
2. m/s
- ✓ 3. m/s/s or m/s^2
4. None of the above



20

Countdown

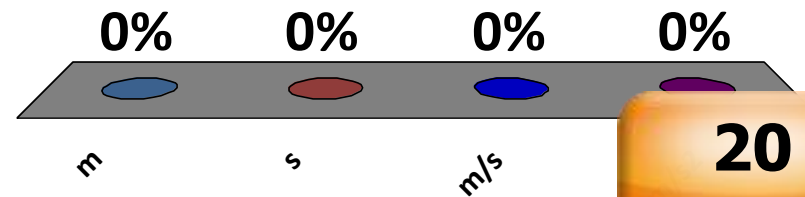
Which of the following units corresponds to the slope of a position-time graph?

1. m

2. s

✓ 3. m/s

4. m/s²



20

Countdown

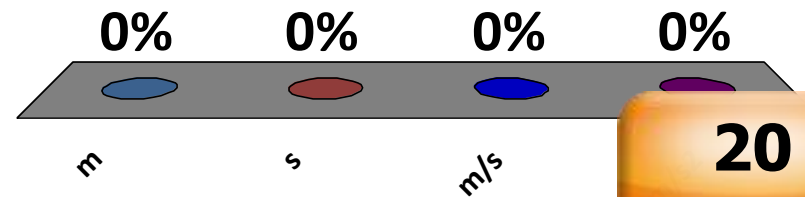
Which of the following units corresponds to the slope of a velocity-time graph?

1. m

2. s

3. m/s

✓ 4. m/s²



20

Countdown

Final Team Scores

1350 Team 1

1258.33 Team 2

1198.33 Team 5

1183.33 Team 4

1008.33 Team 3

Pay attention to how much the time intervals are changing as the distance rises in 20m increments.

Distance (m)	Time (s)
0	0
20	4.5
40	6.3
60	7.7
80	8.9
100	10

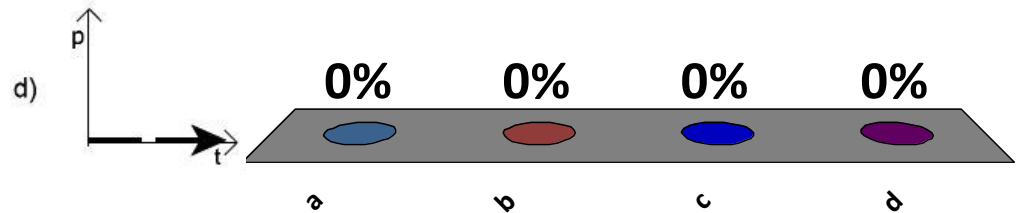
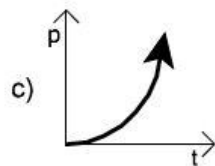
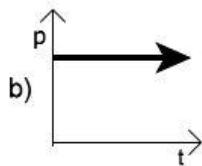
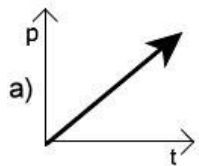
12. Which of the position-time graphs corresponds to the data table?

1. a

2. b

★ 3. c

4. d

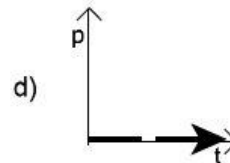
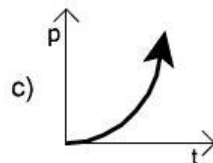
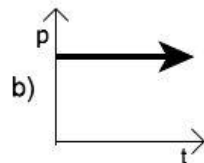
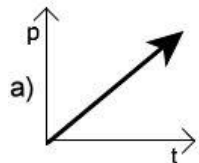


13. Which of the following descriptions matches the graph you selected in question 12?

1. A motionless object
2. An object moving at a constant speed
3. An object undergoing positive acceleration
4. An object undergoing negative acceleration



0%	0%	0%	0%
A motionless o...	An object movi...	An object unde...	An object unde...



14. Which of the following velocity-time graphs corresponds to the data table?

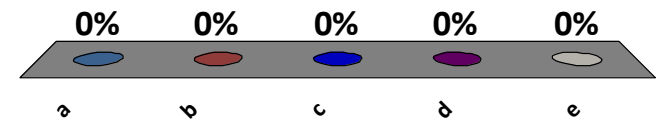
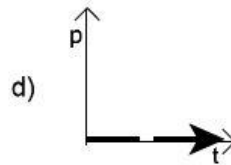
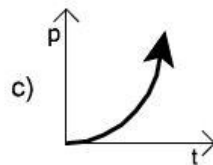
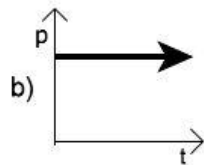
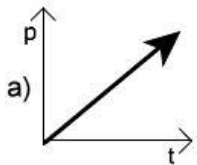
1. a

2. b

★ 3. c

4. d

5. e



15. Which of the following descriptions matches the graph you selected in question 14?

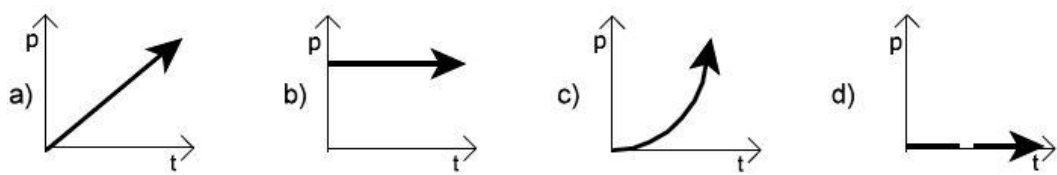
1. A motionless object
2. An object moving at a constant speed
3. An object undergoing positive acceleration
4. An object undergoing negative acceleration



0% 0% 0% 0%

A grey rectangular platform with a slight 3D effect, containing four colored circles: a light blue circle, a red circle, a dark blue circle, and a purple circle.

A motionless o... An object movi... An object unde... An object unde...



Team Scores

0 Team 1

0 Team 2

0 Team 3

0 Team 4

0 Team 5

0	Team 1
0	Team 2
0	Team 3
0	Team 4
0	Team 5