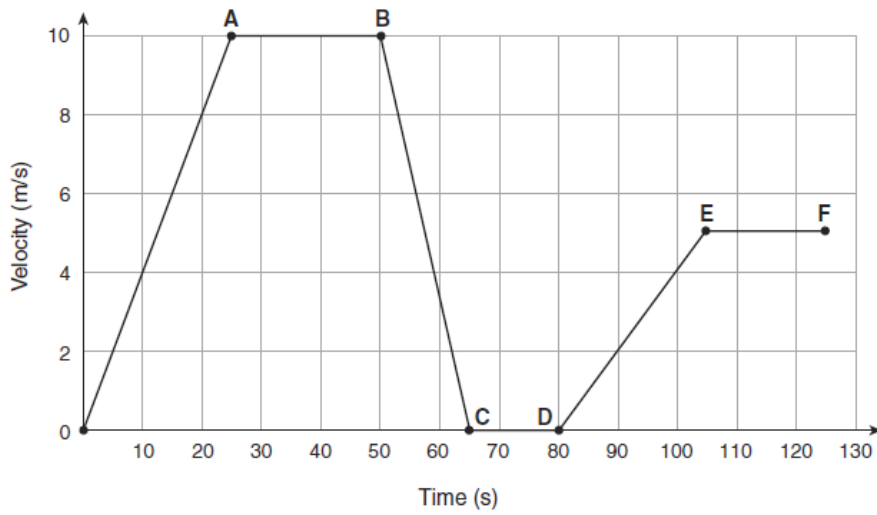


Chapter 9 Provincial Exam Practice

Name: _____

1.

The following graph shows the velocity of a taxi as it travels to the airport.

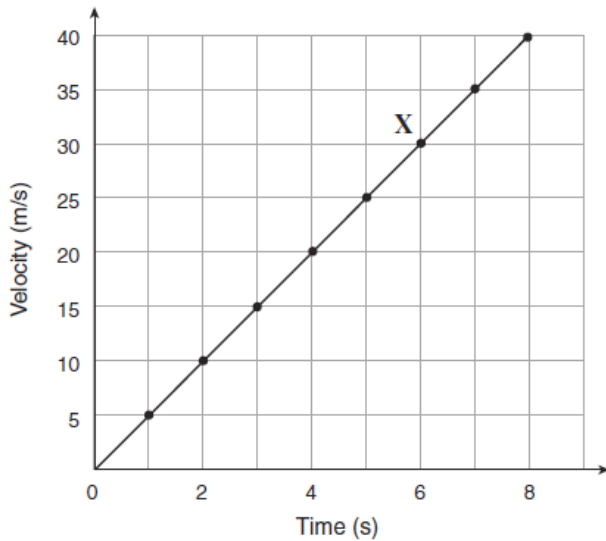


During which interval of the journey is the taxi stopped?

- A. from point A → point B
- B. from point B → point C
- C. from point C → point D
- D. from point D → point E

2. Use the diagram for questions 2-4.

Use the following information for a car moving with constant acceleration to answer questions 53 to 55.



The car has negative acceleration.

- A. The statement is supported by the information given.
- B. The statement is refuted by the information given.
- C. The statement is neither supported nor refuted by the information.

3.

Every second, the velocity of the car increases by 5 m/s .

- A. The statement is supported by the information given.
- B. The statement is refuted by the information given.
- C. The statement is neither supported nor refuted by the information.

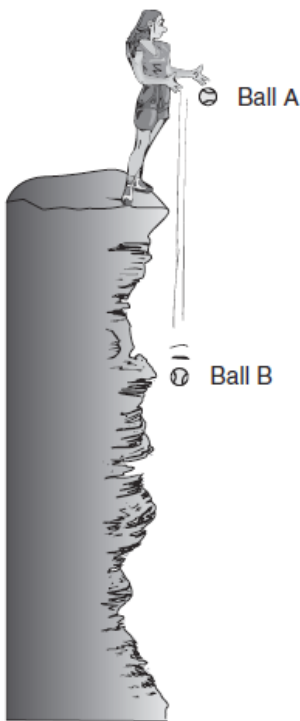
4.

The velocity of the car at X is 5 m/s .

- A. The statement is supported by the information given.
- B. The statement is refuted by the information given.
- C. The statement is neither supported nor refuted by the information.

5.

Use the following information to answer question 56.



- A student holds two identical tennis balls at the same height above a cliff.
- She releases Ball A one second after Ball B.
- Each ball is in the air for three seconds.
- Assume no friction.

Which of the following statements are supported by the diagram and experiment?

I	The balls fall with the same acceleration.
II	Each ball's velocity increases as it falls.
III	As they fall, the distance between the balls increases.

- A. I only
- B. I and II only
- C. II and III only
- D. I, II and III

6.

A Grand Prix race car changes its velocity from 0 km/h to 160 km/h in 2.5 s. Which of the following describes the motion of the car?

- A. uniform motion
- B. zero acceleration
- C. positive acceleration
- D. negative acceleration

7.

A car accelerates from rest at a constant 5 m/s^2

How long will it take the car to reach 10 m/s ?

- A. 2 s
- B. 5 s
- C. 10 s
- D. 50 s

8.

A motorist travels at 2 m/s and then accelerates at a rate of 6 m/s^2 for 3 s. What is the final velocity of the car?

- A. 2 m/s
- B. 6 m/s
- C. 8 m/s
- D. 20 m/s

9.

The rate of change of velocity is represented by which of the following?

- A. s
- B. m
- C. m/s
- D. m/s^2

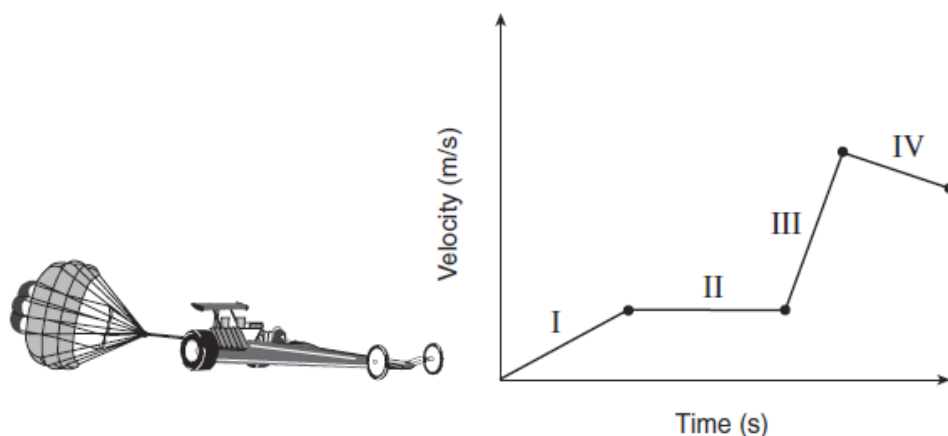
10.

A ball accelerates at 9.8 m/s^2 in free fall. Which of the following correctly describes the motion of the ball as it is falling?

	Velocity	Acceleration
A.	constant	constant
B.	constant	decreasing
C.	increasing	constant
D.	increasing	increasing

11.

Use the following velocity vs. time graph to answer question 54.



The graph above shows the motion of a dragster. During which interval does the dragster have the greatest acceleration?

- A. interval I
- B. interval II
- C. interval III
- D. interval IV

12.

A NASA space shuttle accelerates from rest to a velocity of 50 m/s in 4 s . What calculation must be used to determine the shuttle's acceleration?

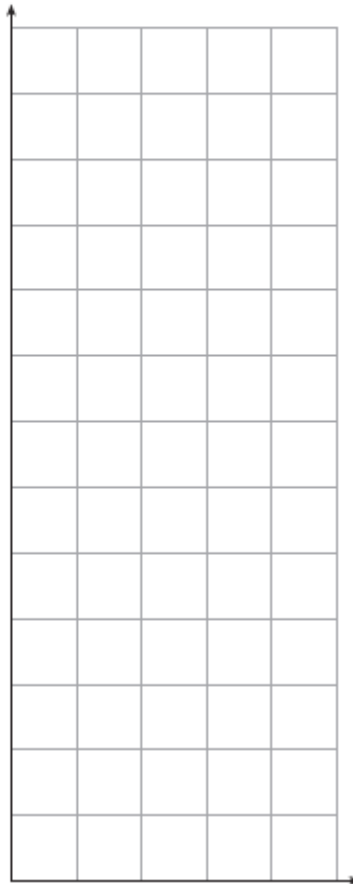
- A. $a = 4 \text{ s} \times 50 \text{ m/s}$
- B. $a = \frac{4 \text{ s}}{50 \text{ m/s}}$
- C. $a = \frac{50 \text{ m/s}}{4 \text{ s}}$
- D. $a = \left(\frac{50 \text{ m/s}}{4 \text{ s}}\right)^2$

13.

Use the data given in the table and the grid provided to answer question 56.

The data represents the motion of a powerboat.
Use the grid provided to determine the acceleration of the boat.

Time (s)	Velocity of Boat (m/s)
0.0	1.9
1.0	4.1
2.0	6.0
3.0	8.2
4.0	9.9
5.0	12.2



What is the acceleration of the boat?

- A. 1 m/s^2
- B. 2 m/s^2
- C. 3 m/s^2
- D. 4 m/s^2

Answers

- 1. C
- 2. B
- 3. A
- 4. B
- 5. D
- 6. C
- 7. A
- 8. D
- 9. D
- 10. C
- 11. C
- 12. C
- 13. B