## CW 1.1 - Graphing Motion Multiple Choice

1. The distance-time graph below represents the position of an object moving in a straight line. What is the speed of the object during the time interval $\mathrm{t}=2.0$ seconds to $\mathrm{t}=4.0$ seconds?

A. $\quad 10 . \mathrm{m} / \mathrm{s}$
B. $\quad 5.0 \mathrm{~m} / \mathrm{s}$
C. $\quad 0.0 \mathrm{~m} / \mathrm{s}$
D. $\quad 7.5 \mathrm{~m} / \mathrm{s}$
2. Which pair of graphs represents the same motion?
1) 


4)

A. 1
B. 2
C. 3
D. 4
3. The displacement-time graph below represents the motion of a cart initially moving forward along a straight line. During which interval is the cart moving forward at constant speed.

A. AB
B. CD
C. BC
D. DE
4. The graph below shows the velocity of a race car moving along a straight line as a function of time. What is the magnitude of the displacement of the car from $t=2.0$ seconds to $t=4.0$ seconds?

A. $80 . \mathrm{m}$
B. $20 . \mathrm{m}$
C. $\quad 60 . \mathrm{m}$
D. $\quad 40 . \mathrm{m}$
5. The graph below shows the relationship between speed and time for two objects, A and B. Compared with the acceleration of object B, the acceleration of object A is:

A. three times as great
B. the same
C. one-third as great
D. twice as great
6. The graph below represents the motion of an object. According to the graph, as time increases, the velocity of the object

A. increases
B. decreases
C. remains the same
7. Which graph best represents the relationship between velocity and time for an object which accelerates uniformly for 2 seconds, then moves at a constant velocity for 1 second, and finally decelerates for 3 seconds?

1



2


A. 1
B. 2
C. 3
D. 4
8. Which graph best represents the motion of an object initially at rest and accelerating uniformly?
1)

3)

2)

4)

A. 1
B. 2
C. 3
D. 4
9. Which graph best represents the motion of an object whose speed is increasing?
1)

3)

2)

4)

A. 1
B. 2
C. 3
D. 4
10. The graph below represents the relationship between distance and time for an object in motion. During which interval is the speed of the object changing?

A. CD
B. AB
C. BC
D. DE

