0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

Last and First Name:

Questions using the sign ♣ may have zero, one or several correct answers. Other questions have a single correct answer.

Q1 The approximate height of a twelve ounce can of root beer is:

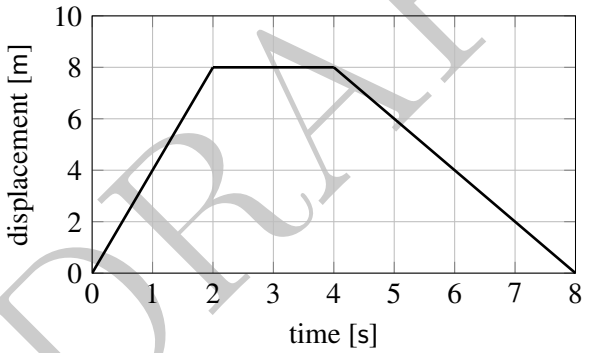
a 1.3×10^{-1} m

c 1.3×10^{-3} m

b 1.3 m

d 1.3×10^{1} m

Q2 The graph below represents the relationship between the displacement of an object and its time of travel along a straight line.



What is the average speed of the object during the first 4.0 s?

a 2 m/s

c 0 m/s

b 4 m/s

d 8 m/s

Q3 A 0.25 kg baseball is thrown upward with a speed of 30.0 m/s. Neglecting friction, the maximum height reached by the baseball is approximately:

a 15 m

c 92 m

b 74 m

d 46 m

Q4 A softball player leaves the batter's box, overruns first base by 3.0 m, and then returns to first base. Compared to the total distance traveled by the player, the magnitude of the player's total displacement from the batter's box is:

[a] larger [b] the same [c] smaller

Q5 A baseball player runs 27.4 m from the batter's box to first base, overruns first base by 3.0 m, and then returns to first base. Compared to the total distance traveled by the player, the magnitude of the player's total displacement from the batter's box is?

[a] 6.0 m shorter
[b] 3.0 m shorter
[c] 3.0 m longer
[d] 6.0 m longer

Q6 A skier starting from rest skis straight down a slope 50 m long in 5.0 s. What is the magnitude of the acceleration of the skier?

[a] 5.0 m/s^2
[b] 9.8 m/s^2
[c] 4.0 m/s^2
[d] 20 m/s^2

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

Last and First Name:

Questions using the sign ♣ may have zero, one or several correct answers. Other questions have a single correct answer.

Q1 A basketball player jumped straight up to grab a rebound. If she was in the air for 0.8 s, how high did she jump?

a 1.2 m
c 0.78 m
b 1.3 m
d 0.50 m

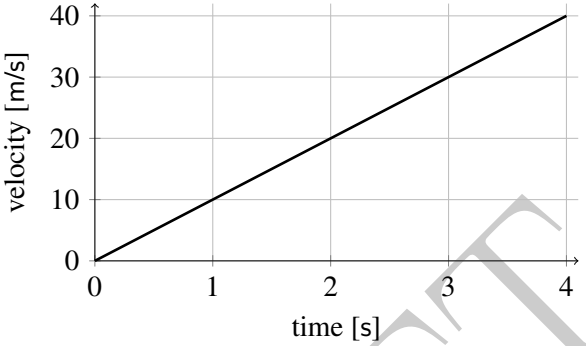
Q2 A ball is hit straight up with an initial speed of 28 m/s. What is the speed of the ball 2.2 s after it is hit? [Neglect friction.]

a 6.4 m/s
c 4.3 m/s
b 22 m/s
d 28 m/s

Q3 A car having an initial velocity of 12 m/s east slows uniformly to 2 m/s east in 4.0 s. The acceleration of the car during this 4.0 s interval is:

a 6.0 m/s^2 east
c 2.5 m/s^2 west
b 6.0 m/s^2 west
d 2.5 m/s^2 east

Q4 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 $t = 2.0\,\text{s}$ to $t = 4.0\,\text{s}$?

a	40 m	c	80 m
b	20 m	d	60 m

Q5 An object has a constant acceleration of $2.0\,\text{m/s}^2$. The time required for the object to accelerate from 8.0 m/s to 28 m/s is:

a	4.0 s	c	10 s
b	16 s	d	20 s

Q6 The length of a football field is closest to:

a	1000 mm	c	1000 dm
b	1000 cm	d	1000 km