

1) If the side length of a cube is  $x$  metres, then the volume can be expressed as

- (A)  $x$  m
- (B)  $3x$  m<sup>2</sup>
- (C)  $x^3$  m<sup>3</sup>
- (D)  $3x^3$  m<sup>3</sup>

2) If  $\frac{q^4}{q^2} = 11$ , then the positive value of  $q$ , rounded to the nearest hundredth, is .

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3) What is the value of  $x$  in the equation  $12x = 50x - 20$ ?

- (A)  $-\frac{19}{10}$
- (B)  $-\frac{10}{19}$
- (C)  $\frac{10}{19}$
- (D)  $\frac{19}{10}$

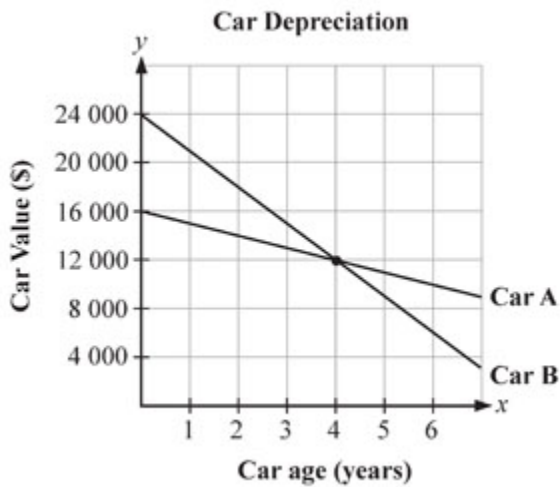
4) In the equation  $-3x - 2 = 2x + 3$ , what is the value of  $x$ ?

- (A) -5
- (B) -1
- (C) 0
- (D) 1

5) What is the value of the expression  $\frac{1}{2}x^4 + 3x^3 - 2x + 2$  when  $x = 2$ ?

- (A) 13
- (B) 27
- (C) 30
- (D) 45

- 6) An equivalent form of the expression  $2(4x - 3)(4x + 3)$  is
- (A)  $64x^2 - 96x - 36$
  - (B)  $32x^2 + 48x - 18$
  - (C)  $64x^2 - 36$
  - (D)  $32x^2 - 18$
- 7) Which of the following equations represents the line with the greatest slope value?
- (A)  $y = 3$
  - (B)  $y = 2x$
  - (C)  $y = -x + 3$
  - (D)  $y = \frac{1}{2}x - 3$
- 8) Two car models with different sales values when they were new depreciate at the rates shown by the two lines on the given graph.



Which of the following statements about the depreciating values of the two cars over time is true?

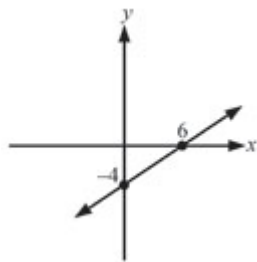
- (A) Car A depreciates at a slower rate than Car B.
- (B) Car A depreciates at a greater rate than Car B.
- (C) Car B has consistently less value than Car A throughout the first six years.
- (D) Car B has consistently more value than Car A throughout the first six years.

9) Which of the following equations represents a line with a slope of  $-4$  and a y-intercept of  $7$ ?

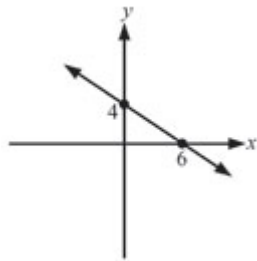
- (A)  $y = -4x + 7$
- (B)  $y = -7 + 4x$
- (C)  $y = -4 - 7x$
- (D)  $y = 7x - 4$

10) Which of the following graphs shows the sketch of the function defined by the equation  $2x - 3y = 12$ ?

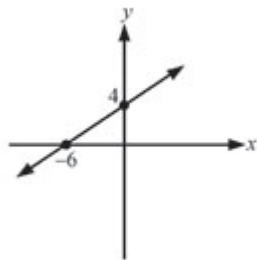
(A)



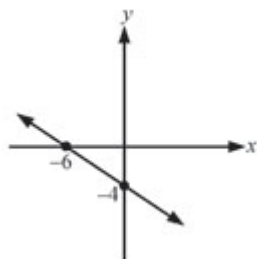
(B)



(C)



(D)



Question	Answer
1	C
2	3.32
3	C
4	B
5	C
6	D
7	B
8	A
9	A
10	A