

**Question 1:** What is the **solution** to  $64x - 27 = 9 + 5(14x - 6)$ ?

- A. -1
- B. 1
- C. 2
- D. -2

**Question 2:** What is the **solution** to the **system of equations**?

$$x = 2y - 4$$

$$7x + 5y = -66$$

- A. (-8, 2)
- B. (8, -2)
- C. (8, 2)
- D. (-8, -2)

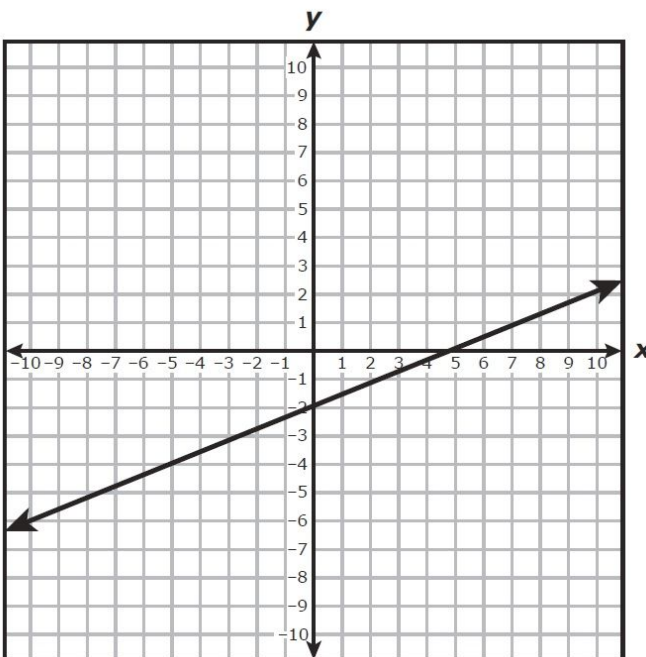
**Question 3:** What are the **solutions** to  $(x - 3)^2 = 100$ ?

- F. -97 and 103
- G. -7 and 13
- H. -13 and 7
- J. -103 and 9

**Question 4:** What is the **solution set** for  $-3x + 14 \geq 7x - 36$

- A.  $x \leq 5$
- B.  $x \leq 50$
- C.  $x \geq -50$
- D.  $x \geq -5$

**Question 5:** What are the **x and y intercept** for the linear graph below



- A. X-intercept is -2 , Y-intercept is 5
- B. X-intercept is 5 , Y-intercept is -2
- C. X-intercept is -5 , Y-intercept is 2
- D. X-intercept is 2 , Y-intercept is -5

**Question 6:** Which ordered pair is in the **solution set** of  $2x - 3y \geq 8$ ?

- F. (1, 5)
- G. (4, 2)
- H. (2, -6)
- J. (-7, -5)

**Question 7:** Given  $f(x) = \frac{1}{2}(x - 5)^2$

What is the **value** of  $f(11)$ ?

- A. 128
- B. 8
- C. 18
- D. 1513

**Question 8:** What **value** of n makes  $6(0.5n - 7) = 4n - 0.75(8 - 4n)$  **true**?

- A. 6
- B. 0
- C. -18
- D. -9

**Question 9:** Which **expression** is **equivalent** to  $\sqrt{18}$ ?

- A.  $3\sqrt{2}$
- B.  $6\sqrt{3}$
- C.  $9\sqrt{2}$
- D.  $2\sqrt{3}$

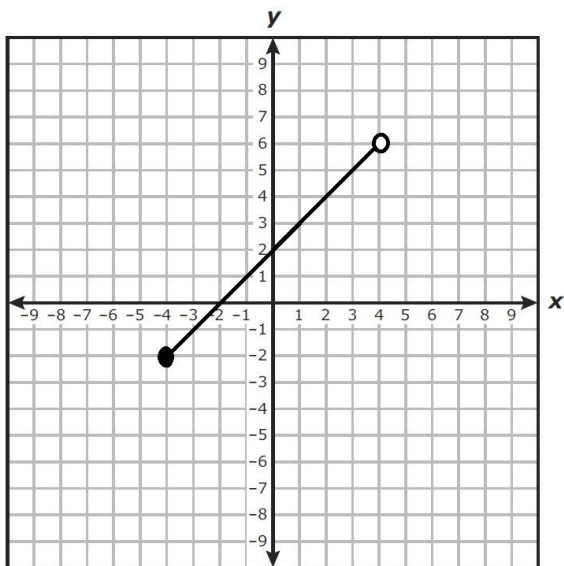
**Question 10:** Which **expression** is **equivalent** to  $x^2 - 13x - 30$ ?

- A.  $(x - 10)(x + 3)$
- B.  $(x - 6)(x - 5)$
- C.  $(x - 15)(x + 2)$
- D.  $(x - 30)(x + 1)$

**Question 11:** Which function is equivalent to  $f(x) = -2(x+5)^2 - 8$

- A.  $f(x) = -2x^2 + 15x + 64$
- B.  $f(x) = -2x^2 - 20x - 42$
- C.  $f(x) = -2x^2 - 20x - 58$
- D.  $f(x) = -2x^2 - 10x + 58$

**Question 12:** What is the domain of the part of the linear function graphed on the grid?



- F.  $-4 \leq x < 4$
- G.  $-2 \leq x < 6$
- H.  $-2 \leq y < 6$
- J.  $-4 \leq y < 4$

**Question 13:** Which expression is a factor of  $15x^2 + 17x - 4$  ?

- A.  $5x + 1$
- B.  $3x + 4$
- C.  $15x - 4$
- D.  $7x + 1$

**Question 14:** What is the slope of the line that passes through the points  $(12, -19)$  and  $(18, -1)$  ?

- A.  $-3$
- B.  $-55$
- C.  $\frac{1}{3}$
- D.  $3$

**Question 15:** Which expression is equivalent to  $-12x^2 + 8x$  ?

- A.  $-4x(3x - 2)$
- B.  $-4x(3x + 2)$
- C.  $4x(3x - 2)$
- D.  $4x(3x + 2)$

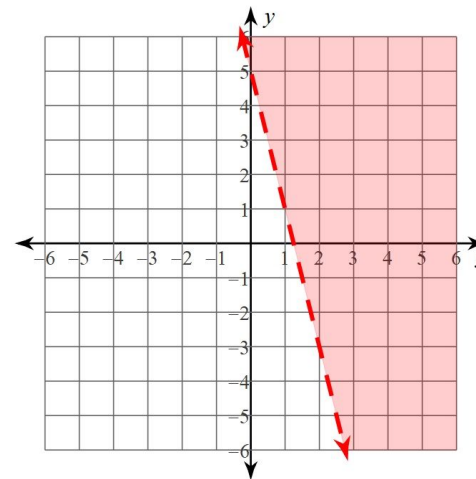
**Question 16:** What is the slope of the line represented by  $-2x + 5y = 10$

- A.  $-2$
- B.  $-5$
- C.  $\frac{2}{5}$
- D.  $2$

**Question 17:** The value of  $y$  is directly proportional to the value of  $x$ . If  $y = 16$  when  $x = 40$ , what is the value of  $y$  when  $x = 10$ ?

**Answer :** \_\_\_\_\_ .

**Question 18:** Which inequality best represents the graph shown below



- A.  $y > -4x + 5$
- B.  $y \geq -4x + 5$
- C.  $y < -4x + 5$
- D.  $y \leq -4x + 5$

**Question 19:** Which expression is equivalent to  $x^4 \cdot x^8$  ?

- F.  $x^{32}$
- G.  $x^2$
- H.  $x^4$
- J.  $x^{12}$

**Question 20:** What is the equation of the line that passes through the point  $(3, 5)$  and has slope of zero?

- A.  $x = 5$
- B.  $y = 5$
- C.  $x = 3$
- D.  $y = 3$