

**Question 1:** What is the **solution**

to  $8x - 3(2x - 4) = 3(x - 6)$  ?

- A. 6
- B. 2
- C. 30
- D. No Solution

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

$$y + 2x = -1$$

$$y = \frac{1}{2}x + 4$$

- A.  $(-5, 6)$
- B.  $(-2, 3)$
- C.  $(-\frac{10}{3}, \frac{5}{6})$
- D.  $(3, -2)$

**Question 3:** What are the

**solutions** to  $\frac{1}{3}x^2 - 3 = 0$  ?

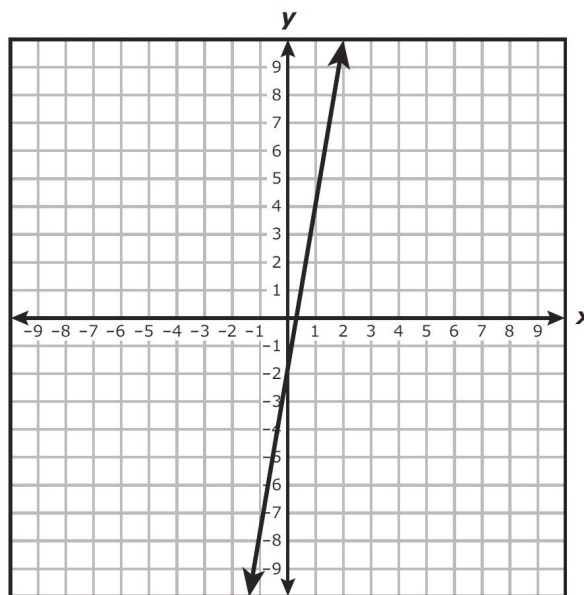
- F.  $-3$  and  $3$
- G.  $-9$  and  $9$
- H.  $0$  and  $3$
- J.  $-3$  and  $0$

**Question 4:** What is the **solution**

**set** for  $5(3 - x) < -2x + 6$  ?

- A.  $x < -9$
- B.  $x > 7$
- C.  $x < -3$
- D.  $x > 3$

**Question 5:** Which ordered pair best represents the location of the y-intercept?



- A.  $(\frac{1}{3}, 0)$
- B.  $(0, -2)$
- C.  $(0, \frac{1}{3})$
- D.  $(-2, 0)$

**Question 6:** Which ordered pair is

in the solution set of  $y \geq \frac{1}{3}x + 4$  ?

- F.  $(-6, 1)$
- G.  $(-1, 6)$
- H.  $(6, -1)$
- J.  $(1, -6)$

**Question 7:** Given that function

$p(x) = 5(x^2 + 1) + 16$ . What is the

**value** of  $p(11)$  ?

- A. 626
- B. 690
- C. 736
- D. 622

**Question 8:** What **value** of  $x$  makes

$0.75(x + 20) = 2 + 0.5(x - 2)$  **true**?

- F. 64
- G.  $-64$
- H. 56
- J.  $-56$

**Question 9:** Which **expression** is

**equivalent** to  $\sqrt{147}$  ?

- A.  $21\sqrt{7}$
- B.  $49\sqrt{3}$
- C.  $7\sqrt{3}$
- D.  $3\sqrt{7}$

**Question 10:** Which **expression** is

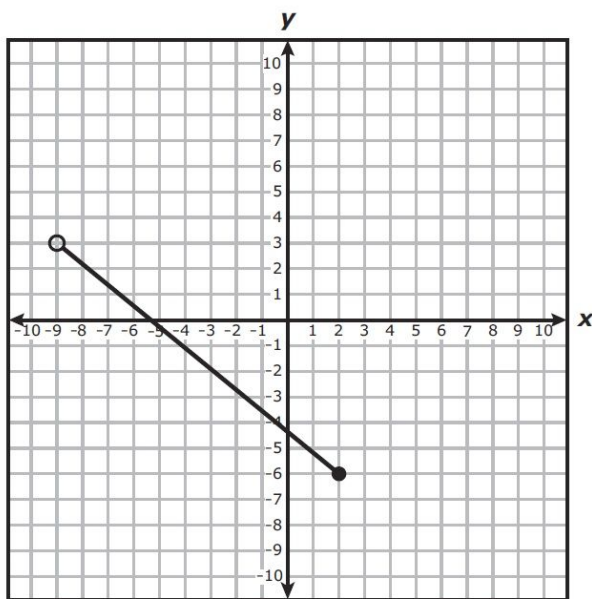
**equivalent** to  $6x^2 + 13x + 5$  ?

- A.  $(2x + 5)(3x - 1)$
- B.  $(2x - 5)(3x + 1)$
- C.  $(2x + 1)(3x + 5)$
- D.  $(2x - 1)(3x - 5)$

**Question 11:** Which of the following is equivalent to  $3x - 4y = 6$

- F.  $y = -\frac{6}{7}x$
- G.  $y = -\frac{3}{4}x$
- H.  $y = \frac{4}{3}x + 2$
- J.  $y = \frac{3}{4}x - \frac{3}{2}$

**Question 12:** The graph of part of linear function  $g$  is shown. Which inequality best represents the domain of the part shown?



- F.  $-9 < x \leq 2$
- G.  $-6 \leq g(x) < 3$
- H.  $-9 \leq x < 2$
- J.  $-6 < g(x) \leq 3$

**Question 13:** Which expression is a factor of  $18x^2 - 15x + 2$  ?

- A.  $3x - 2$
- B.  $x - 2$
- C.  $9x - 1$
- D.  $2x - 1$

**Question 14:** What is the slope of the line that passes through the points  $(26, 7)$  and  $(-39, 12)$  ?

- A.  $\frac{5}{13}$
- B.  $-13$
- C.  $-\frac{1}{13}$
- D.  $\frac{13}{5}$

**Question 15:** Which expression is equivalent to  $m^2 - 7m - 30$  ?

- A.  $(m - 3)(m + 10)$
- B.  $(m - 10)(m + 3)$
- C.  $(m - 15)(m + 2)$
- D.  $(m - 2)(m + 15)$

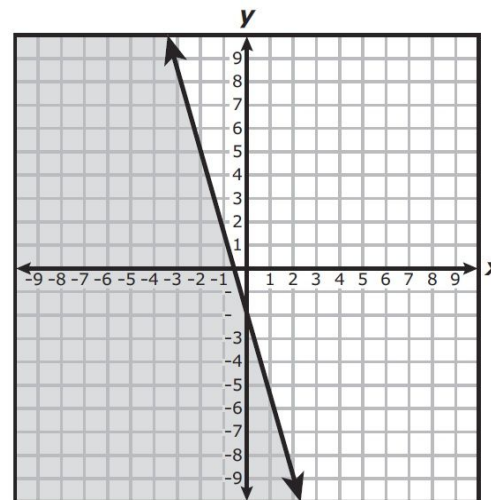
**Question 16:** Which equation in has a graph that passes through the point  $(4, 1)$  and has a slope of  $\frac{5}{2}$  ?

- A.  $5x - 2y = 38$
- B.  $5x - 2y = 8$
- C.  $5x - 2y = 28$
- D.  $5x - 2y = 18$

**Question 17:** The value of  $y$  is directly proportional to the value of  $x$ . If  $y = 480$  when  $x = 12$  , what is the value of  $y$  when  $x = 1.5$  ?

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

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



- A.  $y \leq -\frac{7}{2}x - 2$
- B.  $y \geq -\frac{7}{2}x - 2$
- C.  $y < -\frac{7}{2}x - 2$
- D.  $y > -\frac{7}{2}x - 2$

**Question 19:** Which expression is equivalent to  $\frac{x^{12}}{x^{-2}}$  ?

- F.  $x^{24}$
- G.  $x^{14}$
- H.  $x^6$
- J.  $x^{10}$

**Question 20:** What is the equation of the line passes through the point  $(6, -2)$  has an undefined slope?

- A.  $x = -2$
- B.  $y = 6$
- C.  $x = 6$
- D.  $y = -2$