

All 33 questions are multiple choice. Choose the one alternative that best completes the statement or answers the question. Circle your answer on the exam and circle the corresponding answer on the answer sheet. You may write on this exam. All questions are worth the same number of points.

Add.

1) $-\frac{1}{5} + \frac{4}{5}$

A) $-\frac{3}{5}$

B) -1

C) $\frac{3}{5}$

D) 1

Subtract.

2) $-19 - (-17)$

A) 2

B) -2

C) -36

D) 36

3) $\frac{2}{3} - \frac{1}{6}$

A) $\frac{1}{2}$

B) $\frac{1}{6}$

C) $\frac{5}{6}$

D) $\frac{1}{3}$

Simplify.

4) $\frac{3}{4} - \left(-\frac{9}{16}\right) + \frac{1}{2} - \frac{7}{8}$

A) $\frac{3}{16}$

B) $\frac{15}{16}$

C) $\frac{1}{5}$

D) $-\frac{3}{16}$

Multiply.

5) $-11 \cdot (-10)$

A) 110

B) 120

C) -121

D) 121

6) $\left(-\frac{5}{6}\right) \cdot \left(-\frac{1}{9}\right)$

A) $\frac{1}{9}$

B) $\frac{2}{15}$

C) $-\frac{2}{5}$

D) $\frac{5}{54}$

Divide.

7) $-90 \div (-5)$

A) 8

B) $\frac{1}{18}$

C) -18

D) 18

8) $\frac{3}{4} \div \left(-\frac{5}{6}\right)$

A) $-\frac{5}{8}$

B) $-\frac{9}{10}$

C) $-\frac{10}{9}$

D) $-\frac{8}{5}$

Find an equivalent expression without parentheses.

9) $-(3x - 6)$

A) $3x - 6$

B) $-3x + 6$

C) $18x$

D) $-3x - 6$

Remove parentheses and simplify.

10) $50r + 45 - 7(8r + 6)$

A) $-98r$

B) $50r + 6$

C) $-6r + 3$

D) $-6r - 1$

Simplify.

11) $[2(x - 2) - 5] + [7(x - 1) + 7]$

A) $9x - 7$

B) $9x - 5$

C) $9x - 9$

D) $2x - 16$

Solve the equation using the addition principle.

12) $z - 8 = 3$

A) 5

B) 11

C) -11

D) -5

Solve.

13) $8x + 5 = -67$

A) -80

B) -8

C) -9

D) $-\frac{31}{4}$

14) $-3x - 5x = 32$

A) -4

B) 4

C) 40

D) -3

Solve. Clear fractions first.

15) $x + \frac{1}{4}x = 10$

A) 40

B) 8

C) 11

D) 2

Evaluate the formula for the given values of the variables.

16) $d = rt$; $r = 57$ miles per hour, $t = 5$ hours

A) $d = 285$ miles

B) $d = 570$ miles

C) $d = 62$ miles

D) $d = \frac{57}{5}$ miles

Solve.

17) $2A = bh$ for h

A) $h = \frac{b}{2A}$

B) $h = \frac{A}{2b}$

C) $h = \frac{Ab}{2}$

D) $h = \frac{2A}{b}$

Solve the problem. Round to the nearest hundredth, if necessary.

18) What is 5% of 600?

A) 300

B) 0.3

C) 30

D) 3

Solve the problem.

19) Sarah left a 15% tip of \$5.70 for a meal. What was the cost of the meal before the tip?

A) \$11.40

B) \$38.00

C) \$0.85

D) \$43.70

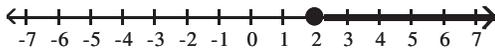
20) If Gloria received a 4 percent raise and is now making \$21,840 a year, what was her salary before the raise? Round to the nearest dollar if necessary.

- A) \$22,000 B) \$21,000 C) \$19,840 D) \$20,966

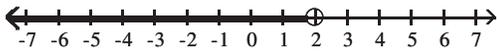
Graph the inequality.

21) $x \geq 2$

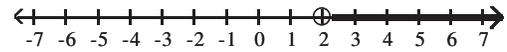
A)



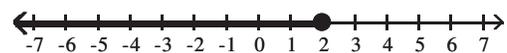
C)



B)



D)



Solve using the addition principle. Graph and write set-builder notation for the answer.

22) $8n + 9 > 7n + 15$

A) $\{n \mid n \leq 24\}$



B) $\{n \mid n < 6\}$



C) $\{n \mid n > 6\}$



D) $\{n \mid n \geq 24\}$



Solve using the multiplication principle.

23) $-2a < \frac{1}{6}$

A) $\left\{a \mid a > -\frac{1}{12}\right\}$

B) $\left\{a \mid a < -\frac{1}{12}\right\}$

C) $\left\{a \mid a > \frac{1}{12}\right\}$

D) $\left\{a \mid a < \frac{1}{12}\right\}$

Solve using the addition and multiplication principles.

24) $-12x - 4 \geq -11x - 7$

A) $\{x \mid x \geq -3\}$

B) $\{x \mid x \leq 3\}$

C) $\{x \mid x > -12\}$

D) $\{x \mid x \leq -12\}$

Determine whether the given ordered pair is a solution of the equation.

25) $4x - 2y = 16$; (3, 2)

A) Yes

B) No

Find the coordinates of the x-intercept and the y-intercept.

26) $-2x + 5y = 10$

A) x-intercept (-4, 0), y-intercept (2, 0)

B) x-intercept (-5, 0), y-intercept (0, 2)

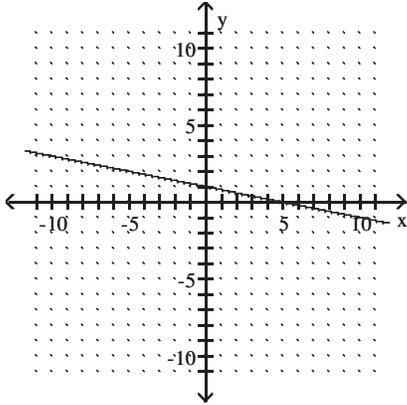
C) x-intercept (-5, 2), y-intercept (-4, 10)

D) x-intercept (0, -4), y-intercept (0, 2)

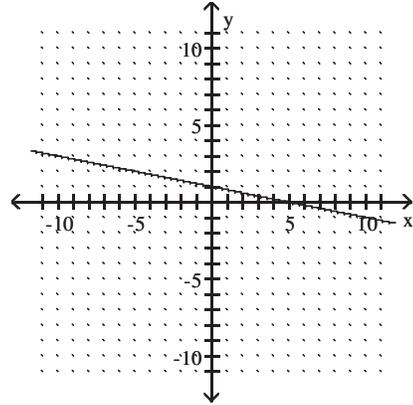
Find the x - and y -intercepts for the equation. Then graph the equation.

27) $x + 5y = 5$

A) $(5, 0), (0, 1)$



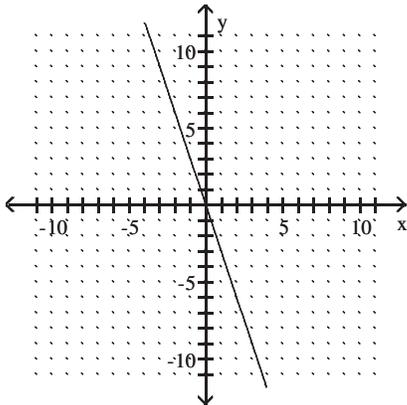
B) $(1, 0), (0, 5)$



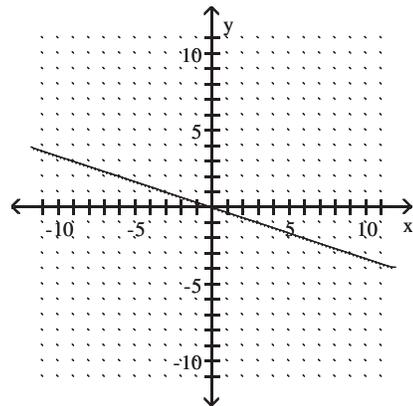
Graph the line containing the given pair of points and find the slope.

28) $(2, -6), (-1, 3)$

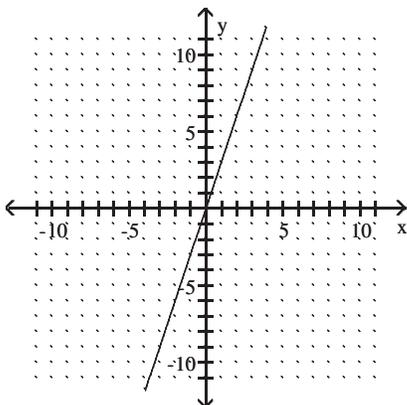
A) -3



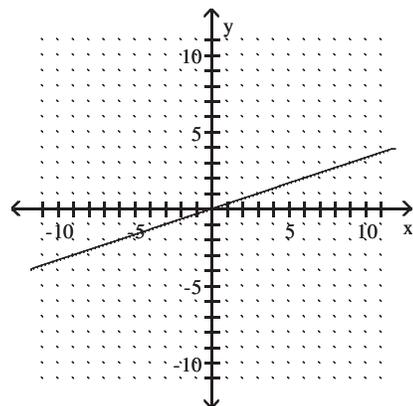
B) $-\frac{1}{3}$



C) 3



D) $\frac{1}{3}$



Find the slope of the line going through the pair of points.

29) $(-3, -7), (3, 2)$

A) 4

B) $\frac{1}{4}$

C) $\frac{3}{2}$

D) $\frac{2}{3}$

Find the slope of the line.

30) $-5y = -4x - 28$

A) $-\frac{4}{5}$

B) $\frac{5}{4}$

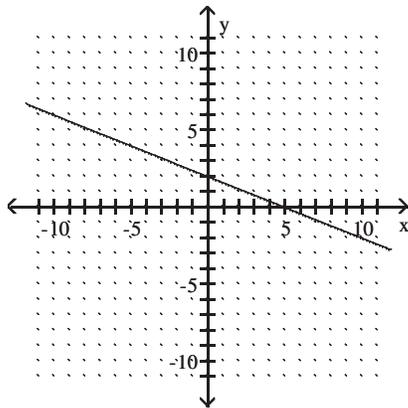
C) $\frac{4}{5}$

D) $-\frac{5}{4}$

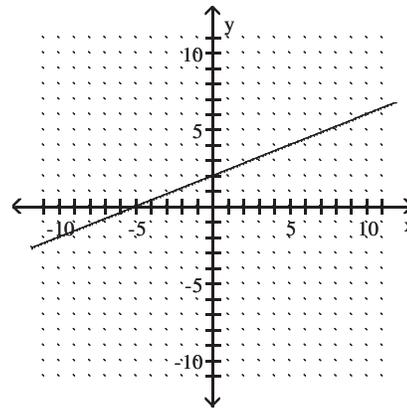
Graph using the slope and the y-intercept.

31) $2x + 5y = 10$

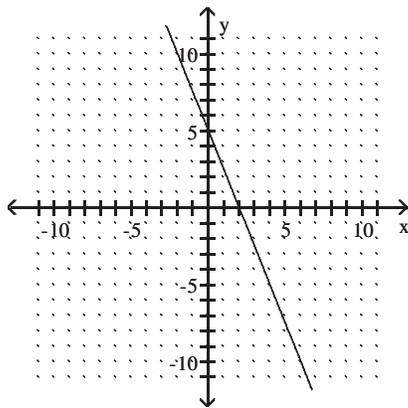
A)



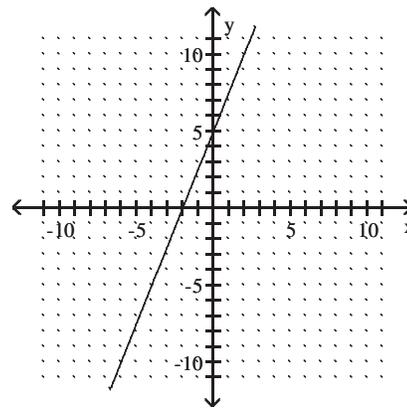
B)



C)



D)



Find an equation of the line having the specified slope and containing the indicated point. Write your answer in slope-intercept form.

32) $m = -8; (-7, 6)$

A) $y = -8x - 51$

B) $y = -8x - 50$

C) $y = -8x - 58$

D) $y = 8x - 52$

Find an equation of the line containing the given pair of points

33) $(-3, 5)$ and $(-6, 17)$

A) $y = 4x - 7$

B) $y = -4x - 7$

C) $y = -7x - 4$

D) $y = -7x + 4$