MAT1033 Test 01 - REVIEW

Actual test has 20 questions.
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Decide whether the pair of lines is parallel, perpendicular, or neither.

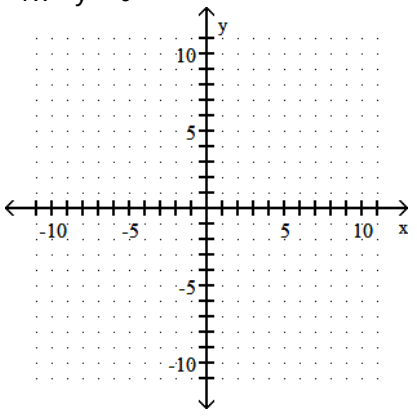
1) $3x - 8y = -7$ and $32x + 12y = -7$ 1) _____

2) $12x + 4y = 16$ and $6x + 2y = 10$ 2) _____

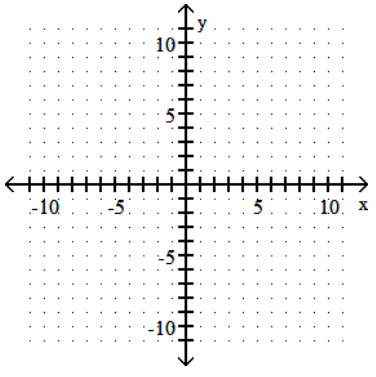
3) The line through $(3, -5)$ and $(-1, 7)$ and the line through $(6, -13)$ and $(-2, 11)$ 3) _____

Graph the linear equation.

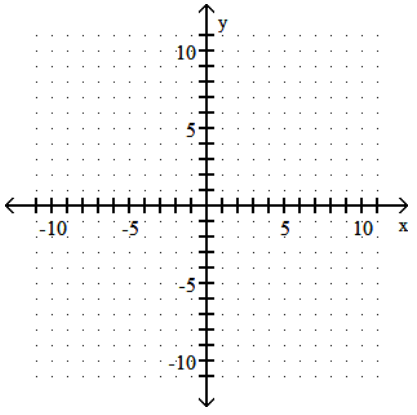
4) $-7x - y = 0$ 4) _____



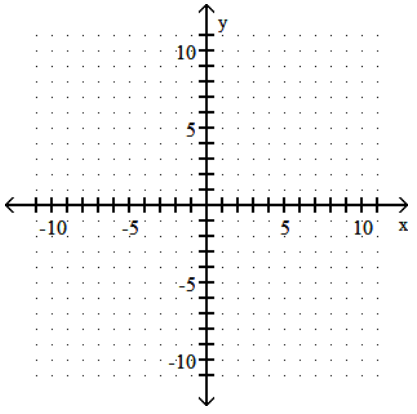
5) $y = -5x$ 5) _____



6) y = x + 3 6) _____



7) 2x - y = 2 7) _____



Find the slope and the y-intercept of the line.

8) 4x + 7y = 34 8) _____

9) 6x - 9y = -18 9) _____

Solve the problem.

10) A woman made a deposit of $228. If her deposit consisted of 92 bills, some of them one-dollar bills and the rest being five-dollar bills, how many one-dollar bills did she deposit? 10) _____

11) There were 420 people at a play. The admission price was $2 for adults and $1 for children. The admission receipts were $690. How many adults and how many children attended? 11) _____

12) Best Rentals charges a daily fee plus a mileage fee for renting its cars. Barney was charged $78.00 for 3 days and 300 miles, while Mary was charged $138.00 for 5 days and 600 miles. What does Best Rentals charge per day and per mile? 12) _____

13) Anne and Nancy use a metal alloy that is 18% copper to make jewelry. How many ounces of a 14% alloy must be mixed with a 20% alloy to form 96 ounces of the desired alloy? 13) _____

14) How many liters (L) of a 10% silver iodide solution must be mixed with 7 L of a 4% silver iodide solution to get a 6% solution? 14) _____

Solve the system by elimination.

15) $9x - 47 = -5y$
$-2x + 2y = -26$ 15) _____

16) $3x + 5y = 5$
$9x - 15y = 10$ 16) _____

17) $-7x + 3y = 32$
$\frac{5}{3}x + y = \frac{8}{3}$ 17) _____

Solve by the substitution method.

18) $x + 5y = -15$
$5x + 6y = -18$ 18) _____

19) $5x - 7y = 26$
$-2x - 2y = 4$ 19) _____

20) $x + y = 5$
$x + y = 9$ 20) _____

21) $9x + 7y = -27$
$-4x + 5y = 12$ 21) _____

Write the slope-intercept form of the equation for the line passing through the given pair of points.

22) (2, -7) and (0, -2) 22) _____

23) (-2, 8) and (1, -5) 23) _____

Solve the system by elimination.

24) $9x + 7y = -28$
$-3x + 3y = -12$ 24) _____

25) $5x + 4y = 3$
$-\frac{7}{4}x + y = \frac{63}{4}$ 25) _____

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

26) (6, -7) and (6, 2) 26) _____

27) (3, 6) and (8, 6) 27) _____

28) (3.7, 4.2) and (3.2, 2.7) 28) _____

Decide whether or not the ordered pair is a solution of the system.

29) (1, -2)
$x + y = -1$
$x - y = 3$ 29) _____

30) (-6, 1) 30) _____
$2x + y = -13$
$3x + 2y = -20$

Find an equation of the line that satisfies the conditions. Write the equation in standard form.

31) Through (0, 7); $m = \frac{7}{5}$ 31) _____

32) Through (2, 3); $m = -\frac{3}{8}$ 32) _____

Find the intercepts for the graph of the equation.

33) $-2x - 2y = 6$ 33) _____

34) $2x + y = -8$ 34) _____

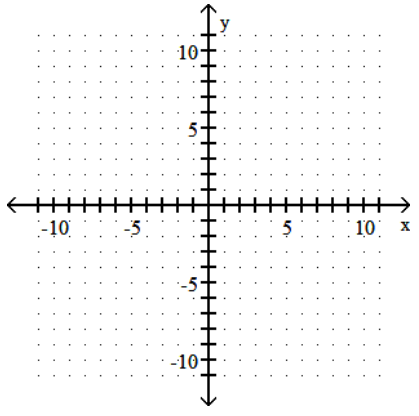
35) $-2x + 4y = 8$ 35) _____

Solve the system by the elimination method.

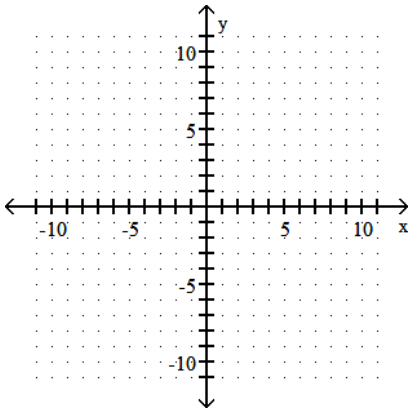
36) $x + 6y = -4$ 36) _____
$3x + 7y = -12$

Graph the line described.

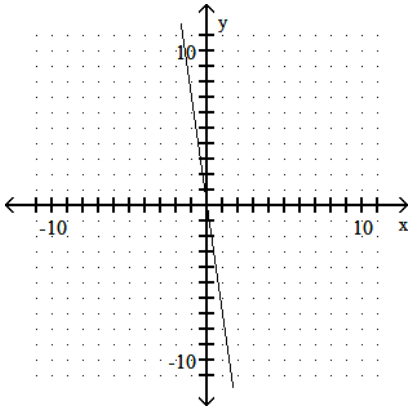
37) Through (0, 4); $m = \frac{1}{4}$ 37) _____



38) Through (0, 4); m = $-\frac{1}{2}$ 38) _____



1) Perpendicular
2) Parallel
3) Parallel
4)



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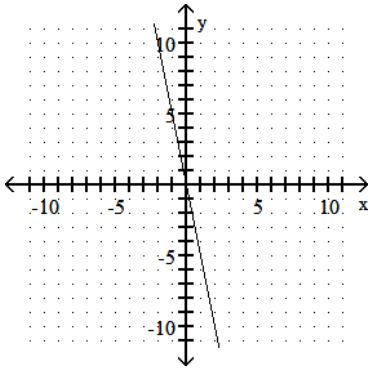

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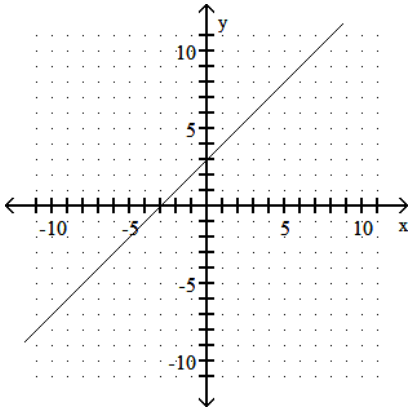

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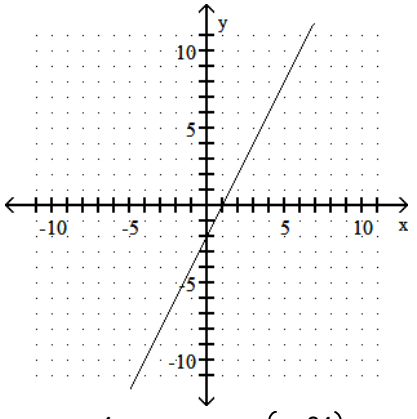


8) Slope $-\frac{4}{7}$; y-intercept $\left(0, \frac{34}{7}\right)$

9) Slope $\frac{2}{3}$; y-intercept (0, 2)

10) 58 one-dollar bills

11) 270 adults and 150 children

12) $18 per day; 8¢ per mile

13) 32 ounces

14) 3.5 L

15) {(8, -5)}

16) $\left\{\left(\frac{25}{18}, \frac{1}{6}\right)\right\}$

17) {(-2, 6)}

18) {(0, -3)}

19) {(1, -3)}

20) ∅

21) {(-3, 0)}

22) $y = -\frac{5}{2}x - 2$

23) $y = -\frac{13}{3}x - \frac{2}{3}$

24) {(0, -4)}

25) {(-5, 7)}

26) Undefined

27) 0

28) 3

29) Yes

30) No

31) 7x - 5y = -35

32) 3x + 8y = 30

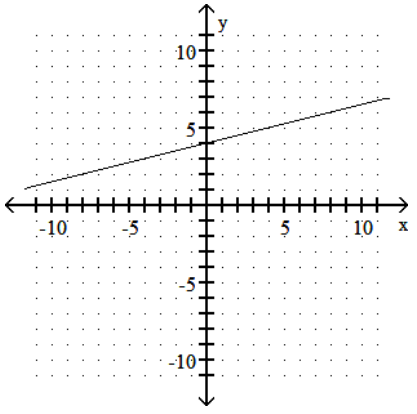
33) (- 3, 0) (0, - 3)

34) (-4, 0) (0, -8)

35) (-4, 0) (0, 2)

36) {(-4, 0)}

37)



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