

MAT 055 Practice Test Chapters 9 and 11

All test answers are to be in simplest form. A calculator may be used.

Cell phones, iPads, and other electronic devices with scanning or photo ability may NOT be used.

No notes, no books, no homework may be used while taking this test.

Solve the equation.

1) $5x - (3x - 1) = 2$

Answer: $\frac{1}{2}$

2) $\frac{1}{5}a - \frac{1}{5} = -5$

Answer: -24

3) $-11.3w + 1.5 = -76.9 - 1.5w$

Answer: 8

Solve the formula for the specified variable.

4) $V = \frac{1}{3}Bh$ for h

Answer: $h = \frac{3V}{B}$

5) $P = 2L + 2W$ for W

Answer: $W = \frac{P - 2L}{2}$

Determine whether the given value is a solution of the inequality.

Answer YES or NO and show work supporting your answer.

6) $6(x - 4) \geq 6 - 9(x - 8), x = -5$

Answer: **No**

7) $\frac{2}{5}x - \frac{1}{3} \leq x + \frac{1}{10}, x = \frac{2}{5}$

Answer: **Yes** $-\frac{13}{75} \leq \frac{1}{2}$

Solve the inequality.

Write the answer in interval notation.

8) $1 + 4z - 1 \geq 3z + 5$

Answer: $[5, \infty)$

9) $1(x - 2) - 27x < -6(4x + 4) - 3x$

Answer: $(-\infty, -22)$

Decide whether or not the ordered pair is a solution of the system. Answer YES or NO.

Show work that supports your answer.

10) $(-2, -5)$ Answer _____

$x + y = -3$

$x - y = 7$

Answer: No

11) $(3, -3)$ Answer _____

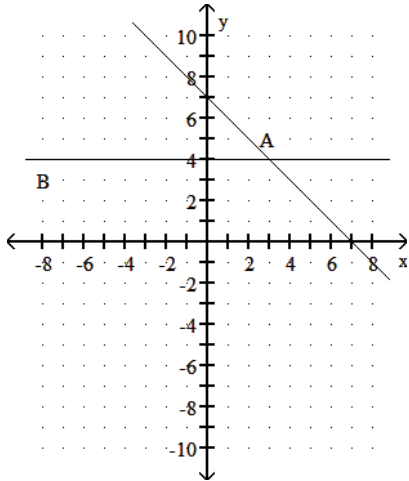
$y = 6 - 3x$

$2x = -3 - 3y$

Answer: Yes

The graphs of two equations are shown. Identify the solution to both equations.

12) Solution to the system is _____



Answer: (3, 4)

Solve the system of equations using your choice of method.

13) $x - 6y = -9$
 $2x - 6y = -6$
 Solution to the system is _____

Answer: (3, 2)

14) $5x - 7y = -3$
 $5x - 7y = -8$
 Solution to the system is _____

Answer: No solutions

15) $2x + 4y = 13$
 $8x + 16y = 52$
 Solution to the system is _____

Answer: Infinitely many

Solve the system of equations using your choice of method.

16) $-7x - 6y = -63$
 $4x - 2y = 36$
 Solution to the system is _____

Answer: (9, 0)

17) $\begin{cases} x + y = 20 \\ y = 9x \end{cases}$
 Solution to the system is _____

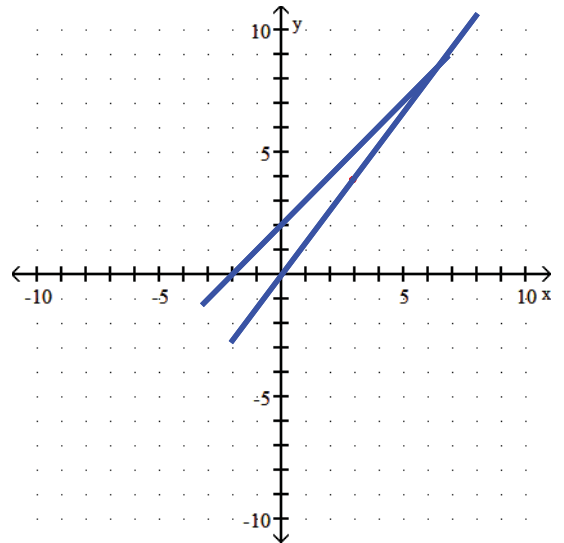
Answer: (2, 18)

Solve the system of equations graphically.

18)

Solve for y or create a +/- table
 $x = y - 2$
 $4x = 3y$

Solution to the system is _____



Answer: (6, 8)

Solve the system of equations graphically.

19)

$3x + 2y = 27$
 $-2x + 3y = -5$

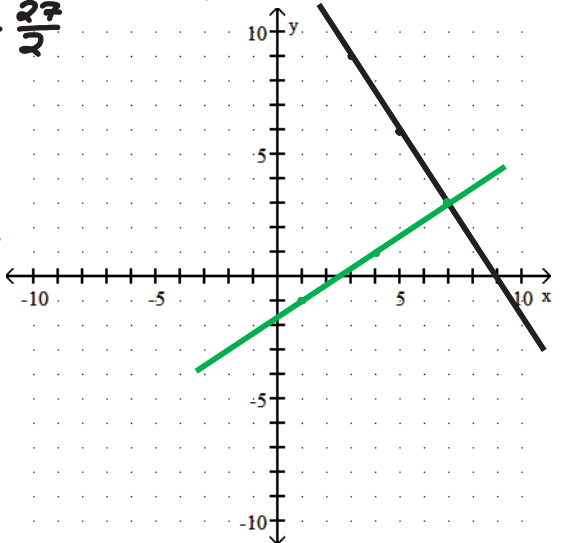
Solution to the system is _____

$y = -\frac{3}{2}x + \frac{27}{2}$

| | |
|---|---|
| x | y |
| 7 | 3 |
| 5 | 6 |
| 3 | 9 |

$y = \frac{2}{3}x - \frac{5}{3}$

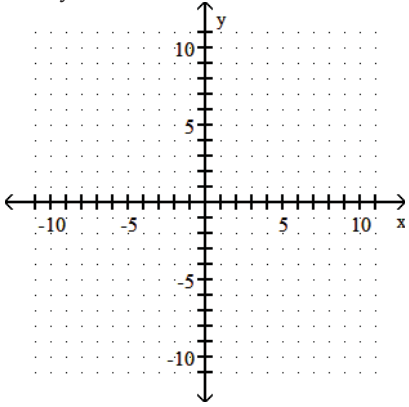
| | |
|---|----|
| x | y |
| 1 | -1 |
| 4 | 1 |
| 7 | 3 |



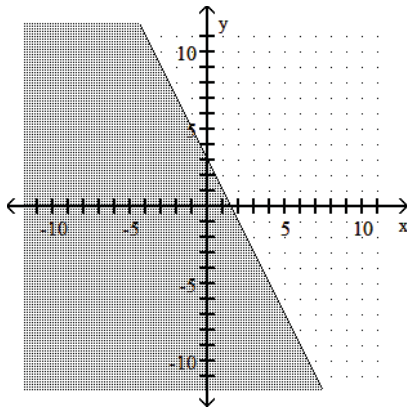
Answer: (7, 3)

Graph the linear inequality in two variables.

20) $2x + y \leq 3$

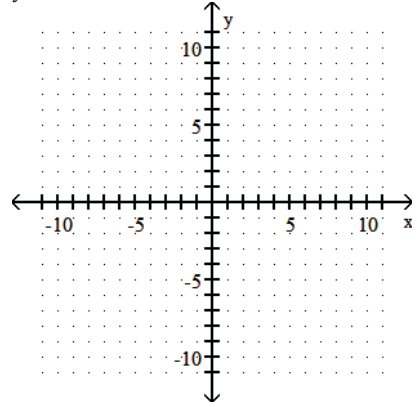


Answer:



21)

$y < -2$



Answer:

