MAT 055 Practice Test Chapters 11 and 12

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.

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

Show work that supports your answer.

1)   (-2, -5)   Answer_____

   $x + y = -3$
   $x - y = 7$

2)   (-2, -5)   Answer_____

   $2x + y = -9$
   $4x + 2y = -18$

3)   (3, -3)   Answer_____

   $y = 6 - 3x$
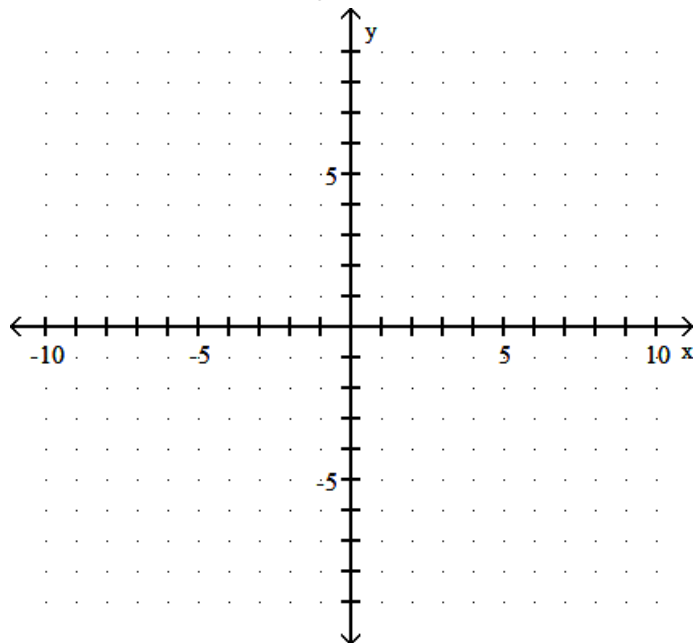 $2x = -3 - 3y$

Solve the system of equations graphically.

4) $x = y - 2$
        $4x = 3y$
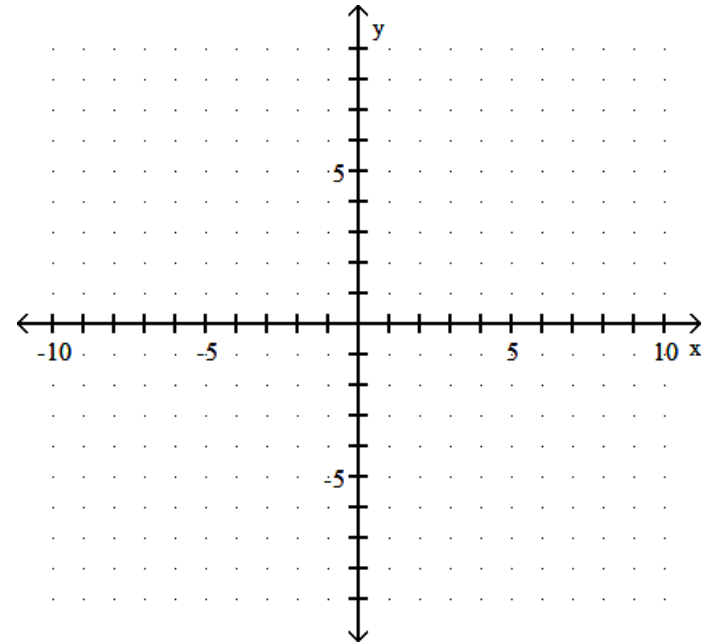
   Solution to the system is _____

Solve the system of equations graphically.

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

   Solution to the system is _____

Solve the system of equations using your choice of method.

6) $x - 6y = -9$
        $2x - 6y = -6$

   Solution to the system is _____

7) $5x - 7y = -3$
        $5x - 7y = -8$

   Solution to the system is _____

8) $2x + 4y = 13$
        $8x + 16y = 52$

   Solution to the system is _____

9) $-7x - 6y = -63$
        $4x - 2y = 36$

   Solution to the system is _____

10) $\begin{cases} x + y = 20 \\ \quad\;\; y = 9x \end{cases}$

   Solution to the system is _____

Simplify the expression.
Write the answer using positive exponents.

Divide using long division.

11) $(3p^3)^2$

12) $(-10x^3)^2$

13) $(w^5z)^2(w^4z^3)$

14) $\left(\dfrac{2}{y^2}\right)^3$

15) $\left(\dfrac{xy^7}{z^7}\right)^0$

16) $(-5)^{-2}$

17) $\dfrac{6^4 x^8}{6^8 x^6}$

18) $(x^{-2}y^{-2})(x^4y^{-4})$

19) $\dfrac{7x^2 - 3x + 1}{21x}$

20) $\dfrac{12x^3 - 32x^2 - 20x + 5}{4x}$

21) $(p^2 + 4p - 30) \div (p + 8)$

22) $\dfrac{x^2 + 7x - 18}{x + 9}$

23) $(6x^3 + 14x^2 - 7x - 20) \div (3x + 4)$