Math 084 W2010 Quiz 7 Preparation Sections 5.1 5.2 v01
Dressler

Name_____

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

1) (5, 5)
$x + y = 0$
$x - y = -10$

2) (6, –1)
$x + y = -7$
$x - y = -5$

3) (2, 5)
$2x = 1 - y$
$4x = 2 - 2y$

4) (–3, –5)
$4x = -17 - y$
$3x = -29 - 4y$

5) (4, 4)
$3x + y = 8$
$2x + 3y = -4$

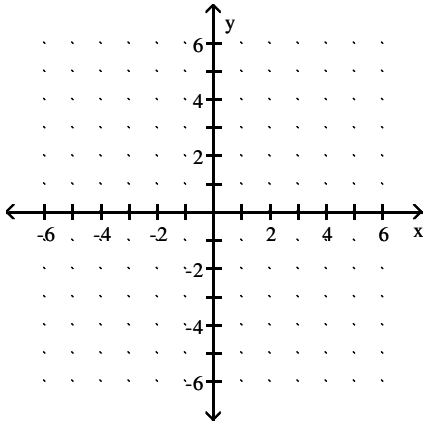
6) (5, 3)
$3x = -12 - y$
$2x = -1 - 3y$

7) (6, –3)
$4x = 21 - y$
$2x = 0 - 4y$

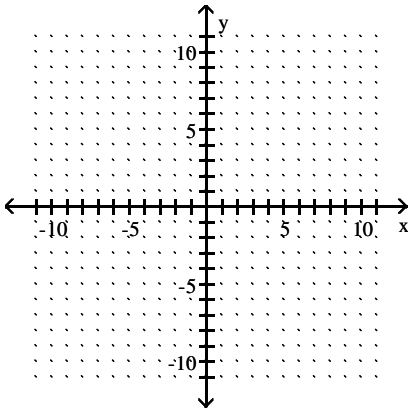
8) (4, 2)
$2x + y = 6$
$3x + 2y = 8$

Solve the system by graphing.

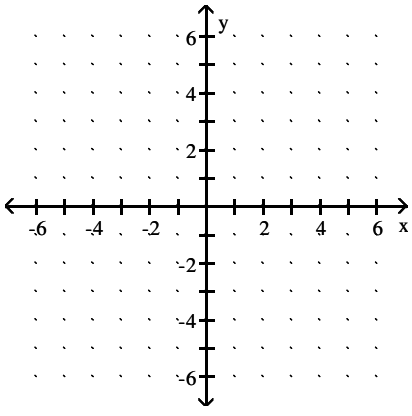
9) $3x + y = -7$
$6x + 4y = -4$



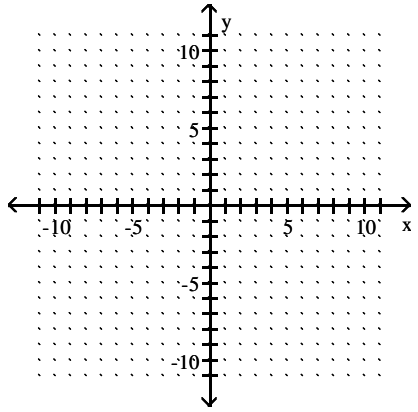
10) $x + y = 6$
$x - y = -2$



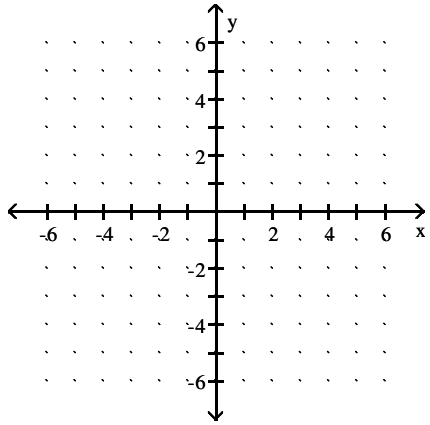
11) $\frac{1}{5}x - y = 1$
$x = 5$



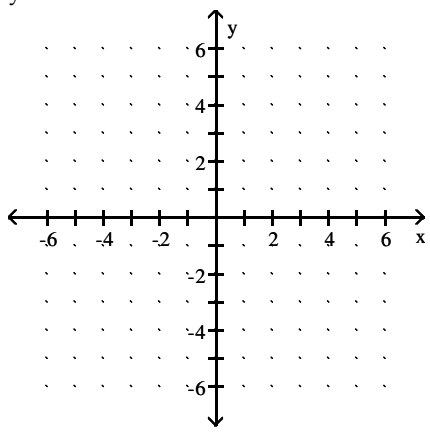
12) $2x + y = 8$
$3x + y = 10$



13) $x = 6$
$y = -5$

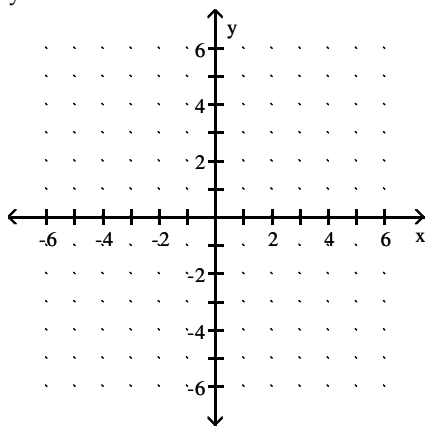


14) $x = 3$
$y = -2$

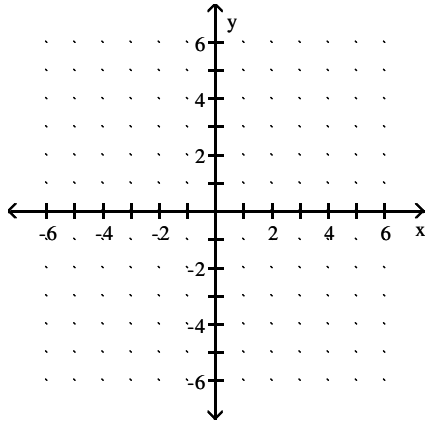


Solve the system by graphing. If there is no solution or an infinite number of solutions, so state.

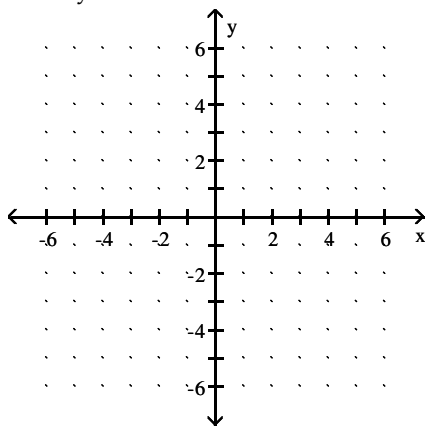
15) $x = -y$
$y + x = 6$



16) $2x + y = 1$
$2x + y = 2$



17) $2x + y = 6$
$4x + 2y = 12$



Solve the system by the substitution method. If there is no solution or an infinite number of solutions, so state.

18) $x + y = -8$
$y = 3x$

19) $x + y = -2$
$y = -3x$

20) $9x + 8y = 72$
$-7x + 5y = 45$

21) $\frac{1}{5}x + \frac{1}{5}y = 1$
$x - y = -9$

22) $y = 1.2x - 2.7$
$y = 0.4x - 1.26$

23) $3x + y = 12$
$12x + 4y = 48$

24) $x + y = -6$
$x - y = 14$

25) $9x + 6y = 24$
$-7x - 4y = -16$

26) $\frac{1}{2}x + \frac{1}{2}y = -1$
$x - y = -6$

27) $\frac{1}{3}x + \frac{1}{3}y = 2$
$x - y = -12$

28) $y = 1.1x - 4.4$
$y = 0.7x - 1.32$

29) $y = 1.1x + 2.4$
$y = 0.3x + 0.24$

30) $4x + y = 14$
$12x + 3y = 42$

31) $x + y = -1$
$x - y = 12$

Solve the problem.

32) One number is 6 less than a second number. Twice the second number is 12 less than 5 times the first. Find the two numbers.

33) One number is 8 less than a second number. Twice the second number is 5 less than 5 times the first. Find the two numbers.

34) One number is 5 less than a second number. Twice the second number is 17 less than 5 times the first. Find the two numbers.

35) One number is 2 less than a second number. Twice the second number is 12 more than 3 times the first. Find the two numbers.

36) One number is 8 less than a second number. Twice the second number is 38 more than 4 times the first. Find the two numbers.

37) A vendor sells hot dogs and bags of potato chips. A customer buys 3 hot dogs and 2 bags of potato chips for $9.25. Another customer buys 2 hot dogs and 4 bags of potato chips for $9.50. Find the cost of each item.

38) A vendor sells hot dogs and bags of potato chips. A customer buys 2 hot dogs and 4 bags of potato chips for $9.00. Another customer buys 5 hot dogs and 3 bags of potato chips for $13.75. Find the cost of each item.

39) A tour group split into two groups when waiting in line for food at a fast food counter. The first group bought 8 slices of pizza and 7 soft drinks for $35.42. The second group bought 7 slices of pizza and 7 soft drinks for $ 32.13. How much does one slice of pizza cost?

40) A tour group split into two groups when waiting in line for food at a fast food counter. The first group bought 8 slices of pizza and 7 soft drinks for $39.27. The second group bought 5 slices of pizza and 6 soft drinks for $ 26.90. How much does one slice of pizza cost?

1) No
2) No
3) No
4) Yes
5) No
6) No
7) Yes
8) No
9) {(–4, 5)}
10) {(2, 4)}
11) {(5, 0)}
12) {(2, 4)}
13) {(6, –5)}
14) {(3, –2)}
15) no solution; ∅
16) no solution; ∅
17) infinite number of solutions; {(x, y)| 2x + y = 6} or {(x, y)| 4x + 2y = 12}
18) {(–2, –6)}
19) {(1, –3)}
20) {(0, 9)}
21) {(–2, 7)}
22) {(1.8, –0.54)}
23) infinite number of solutions; {(x, y)| 3x + y = 12} or {(x, y)| 12x + 4y = 48}
24) $\{(4, -10)\}$
25) {(0, 4)}
26) {(–4, 2)}
27) {(–3, 9)}
28) {(7.7, 4.07)}
29) {(–2.7, –0.57)}
30) infinite number of solutions; {(x, y)| 4x + y = 14} or {(x, y)| 12x + 3y = 42}
31) $\left\{\left(\frac{11}{2}, -\frac{13}{2}\right)\right\}$
32) 8 and 14
33) 7 and 15
34) 9 and 14
35) –8 and –6
36) –11 and –3
37) $2.25 for a hot dog; $1.25 for a bag of potato chips
38) $2.00 for a hot dog; $1.25 for a bag of potato chips
39) $3.29 per slice of pizza
40) $3.64 per slice of pizza