Robots & Math
Teacher Name

Name: _____
Date: _____ Per: __

Unit Assessment

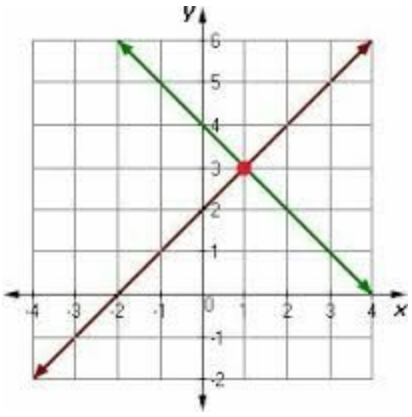
Show ALL work and box final answers. Round decimals to the nearest tenth.

1) A tire with a 3.2 inch diameter rotates 1,250 degrees. How far has the tire traveled?

2) You have a linkbot wheel with a 15 inch circumference that must travel 23 inches. How many degrees do the wheels need to be programmed to spin?

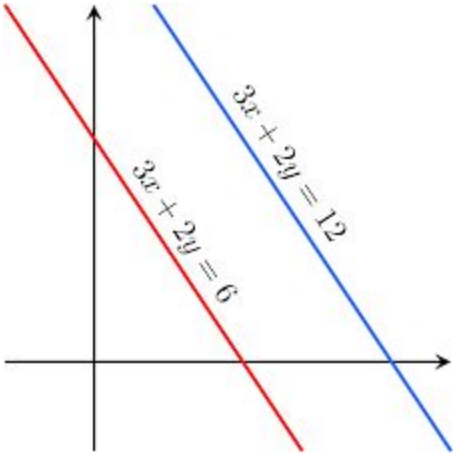
3) The following graph shows a linear system. Does the system have one solution, no solutions, or infinitely many solutions? If it has a solution, name it.

a.)



solution: _____

b.)

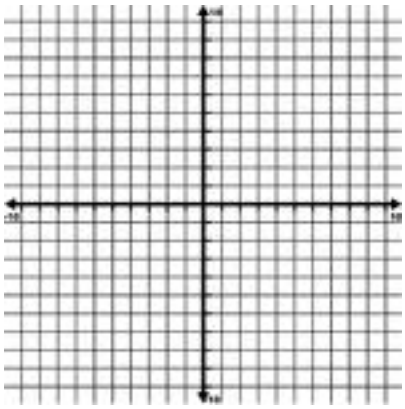


solution: _____

4) Solve the following system by graphing.

$y = -5x + 7$

$y = -4x + 5$



Solution: _____

5) Solve the following systems using substitution.

a) $y = 8x + 3$
$y = -x + 12$

b) $y = -5x + 1$
$7x - 7y = 77$

6) Solve the following systems using elimination.

a) $3x + 5y = 23$
$-3x + 2y = -37$

b) $-2x - 3y = 14$
$3x - 3y = 39$

c) $-8x + 28y = 40$
$4x + 8y = 24$