

Key

Test Review

1. Without graphing and without using substitution or elimination, how can you tell that a system of equations will have infinitely many solutions? *if the equations have the same slope and y-intercept*

2. Solve using substitution. $2x + y = 1$ and $x - y = 8$

3. Solve using elimination: $2x = -3y + 2$ and $3x - 4y = -14$

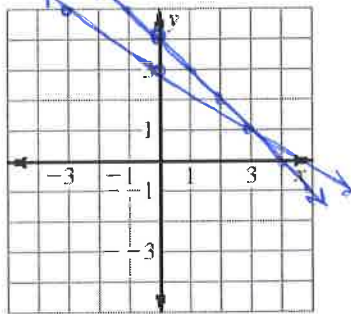
4. Graph $x + y = 4$ and $2x + 3y = 9$

$$y = -x + 4$$

$$3y = -2x + 9$$

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

$(3, 1)$

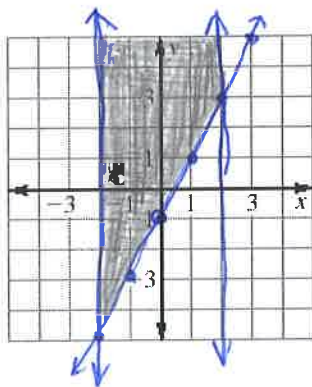


5. $-2 \leq x \leq 2$

$$y \geq 2x - 1$$

$$x \leq 2$$

$$x \geq -2$$



6. You can work no more than 20 hours a week at your two jobs. Babysitting pays \$5 per hour, and your cashier job pays \$6 per hour. You need to earn at least \$90 per week to cover your expenses. Write a system of inequalities. **YOU DO NOT NEED TO SOLVE!**

$x =$ hours babysitting
 $y =$ hours as cashier

$$x + y = 20$$

$$5x + 6y = 90$$

7. A caterer is planning a party for 64 people. The consumer has \$150 to spend. A \$39 pan of pasta feeds 14 people and a \$12 sandwich tray feeds 6 people. How many pans of pasta and how many sandwich trays should the caterer make?

$x =$ pans of pasta
 $y =$ sandwich trays

2 pans of pasta and 6 sandwich trays

$$(14x + 6y = 64) \cdot 2$$

$$39x + 12y = 150$$

$$+ -28x - 12y = -128$$

$$11x = 22$$

$$x = 2$$

$$14(2) + 6y = 64$$

$$6y = 36$$

$$y = 6$$