Ready, Set, Go!

Ready
Topic: Inequalities

1. Use the inequality 4 < 6 to complete each row in the table.

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Apply each operation to the original inequality 4 < 6	Result	Is the inequality still true?
Add 4 to both sides		
Add -4 to both sides		
Subtract 10 from both sides		
Multiply both sides by 4		
Divide both sides by 2		
Multiply both sides by -3		
Divide both sides by -2		

In general, what operations, when performed on an inequality, *reverse* the inequality?

Set
Topic: Solve literal equations

Solve for the indicated variable.

2. Solve the following equation to isolate F: $C = \frac{5}{9}(F - 32)$

3. For $V = \frac{1}{3}\pi r^2 h$, rewrite the formula to isolate the variable h.

4. The area formula of a regular polygon is $A = \frac{1}{2}Pa$. The variable a represents the apothem and P represents the perimeter of the polygon. Rewrite the equation to highlight the value of the perimeter, P.

5. The equation $y = mx + b$ is the equation of a line. Isolate the variables m.

6. The equation $y = mx + b$ is the equation of a line. Isolate the variable x.

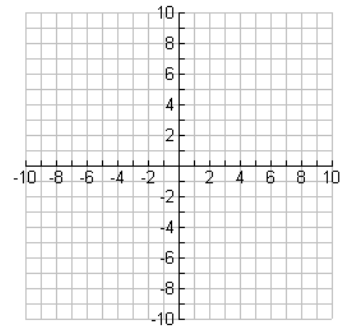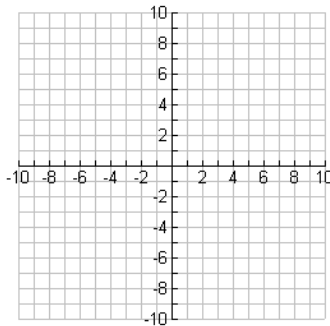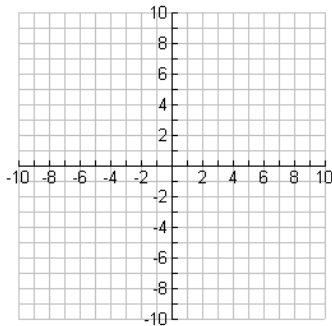7. $Ax + By = C$ is the standard form for a line. Isolate the equation for x.

8. $Ax + By = C$ is the standard form for a line. Isolate the equation for y.

Go

Topic: Solve systems of linear equations

Solve linear equations and pairs of simultaneous linear equations (simple, with a graph only). Justify the solution numerically.

9. $y = x + 3$ and $y = -x + 3$ 10. $y = 3x - 6$ and $y = -x + 6$ 11. $2x = 4$ and $y = -3$

Need Help? Possible helpful reasources:

http://www.khanacademy.org/math/algebra/solving-linear-inequalities/v/equations-and-inequalities

http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-for-a-variable

http://www.khanacademy.org/math/algebra/systems-of-eq-and-ineq/v/solving-linear-systems-by-graphing