

# Procedure for Checking Answers

## Algebra I

*When you are completing problems:*



Make sure that when you are completing a problem you write down all your steps in solving the problem. Errors are more likely to occur when you solve problems in your head. This also makes it easier to go back and check your answers to find any mistakes that you might have made.

*When you go back to check your answers:*



First look at your answer to see if it makes sense in context of what you are solving for, and the definitions of the terms associated with the topic.

- ☑ Example: When you are asked to graph an equation, consider the definitions of positive and negative slopes. If you asked to graph a function that has a negative slope, but you graph a line that is increasing (one that has a positive slope), then that should be your first hint that something is not right.



When you solve a problem, check your answer by plugging in your solution into the original equation.

- ☑ Example: Think of a problem where you are asked to find the equation of a line given two points. To check your solution, once you find the equation, plug the points back into the equation to see if the line is correct.

Imagine you were given the points (5,6) and (-2,3) and then found the equation of a line as  $y = 5x - 19$ .

To check to see if this equation is correct plug the points into the equation:

$$y = 5x - 19$$

$$6 = 5(5) - 19$$

$$6 = 25 - 19$$

$$6 = 6 \text{ this is true so } (5,6) \text{ is a point on the line } y = 5x - 19$$

plugging in the second point though:

$$y = 5x - 19$$

$$3 = 5(-2) - 19$$

$$3 = -10 - 19$$

$3 = -29$  this is *not true*, therefore the equation does not pass through both of these points and the solution is wrong