

"Do you know enough Algebra to survive Trigonometry?"

Name: _____

1. Rearrange to solve for x.

$$a^2 = b^2 + c^2 - 2bcx$$

2. Rearrange to solve for x.

$$a(x + 10) = bx$$

3. Solve for x.

$$(x - 3)(2x + 1)(x + 5) = 0$$

4. Solve for x.

$$x^2 = 9$$

5. Factor completely.

$$2x^2 - 4x + 3xy - 6y$$

6. Factor completely.

$$2x^2 - 3x - 2$$

7. Simplify.

$$\frac{x^2 + x - 6}{x^2 - x} \cdot \frac{x^2 - 1}{x^2 - x - 2}$$

8. Rationalize the denominator.

$$\frac{2}{1 - \sqrt{3}}$$

9. Simplify by writing as a single fraction with rationalized denominator.

$$\frac{1}{\sqrt{2}} - \frac{1}{2} \div \frac{1}{\sqrt{3}}$$

10. Describe in words how to obtain the graph of $f(x) = |x - 3| + 1$ from the graph of $f(x) = |x|$.

11. Given the following function $f(x)$, find the formula for its inverse, $f^{-1}(x)$.

$$f(x) = 2x - 1$$