Unit 1 - Quadratics

Solving One-Variable Equations

Example 1 $-9x + 1 = -80$

$-1 \quad -1$

$\frac{-9x}{-9} = \frac{-81}{-9}$

$x = 9$

Example 2 $5x - 4 = 21$

$+4 \quad +4$

$\frac{5x}{5} = \frac{25}{5}$

$x = 5$

Example 3 $6(2x + 3) = -18$

$12x + 18 = -18$

$-18 \quad -18$

$\frac{12x}{12} = \frac{-36}{12}$

$X = -3$

Example 4 $2(4x - 7) = -30$

$8x - 14 = -30$

$+14 \quad +14$

$\frac{8x}{8} = \frac{-16}{8}$

$X = -2$

Example 5 $5(x - 3) + 4x = -6$

$5x - 15 + 4x = -6$

$9x - 15 = -6$

$+15 \quad +15$

$\frac{9x}{9} = \frac{9}{9}$

$x = 1$

Simplifying Radicals

Example 1 $\sqrt{63} = 3\sqrt{7}$

① Look for primes
② Single primes go under √
③ Cross out pairs and write one on outside of √

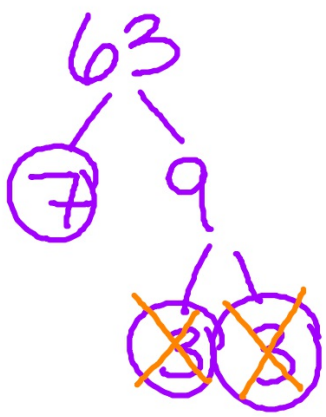
$\sqrt{63}$

$\sqrt{7 \cdot 9}$

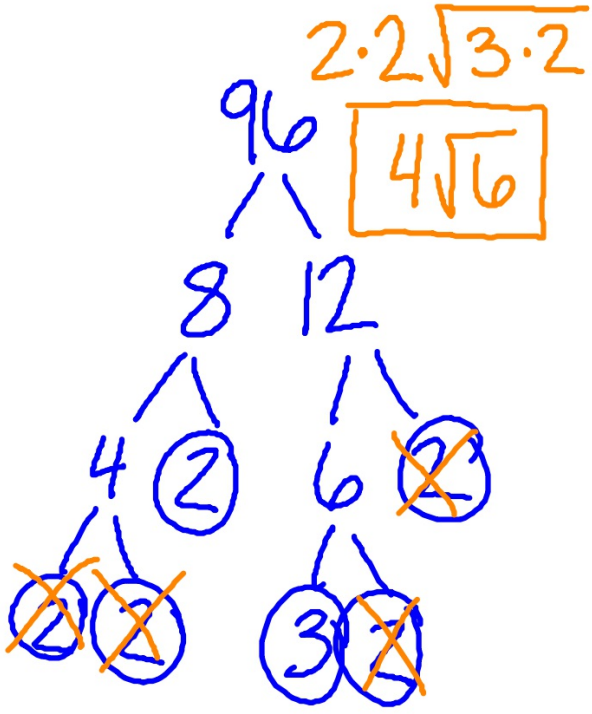
$\sqrt{7}\sqrt{9}$

$\sqrt{7} \cdot 3$

$3\sqrt{7}$



Example 2 $\sqrt{96}$



Example 3 $\sqrt{360}$