

te in exponential form.

$$\frac{10}{\sqrt[9]{y^{17}}}$$

$$\frac{10}{y^{17/9}} \quad \text{OR} \quad 10y^{-17/9}$$

$$\sqrt{64h^3}$$

$$64^{1/2} h^{3/2}$$
$$\boxed{8h^{3/2}}$$

$$5) \sqrt{3x+7} - x = 3$$

$$(\sqrt{3x+7})^2 = (x+3)^2$$

$$3x+7 = (x+3)(x+3)$$

$x + 3$	
x^2	$3x$
$3x$	9

$$3x+7 = x^2 + 6x + 9$$

$$3x - 7 - 3x - 7$$

$$0 = x^2 + 3x + 2$$

$$\begin{array}{r} \text{a.c} \\ 2 \\ 1 \cdot 2 \\ + \\ 3 \\ \downarrow \end{array}$$

$$0 = (x+1)(x+2)$$

$$0 = x+1$$

$$\boxed{-1 = x}$$

$$0 = x+2$$

$$\boxed{-2 = x}$$

$$\sqrt{3(-1)+7} - (-1) = 3$$

$$\sqrt{3(-2)+7} - (-2) = 3$$

$$\sqrt{4} + 1 = 3$$

$$\sqrt{1} + 2 = 3$$

$$2 + 1 = 3 \checkmark$$

$$1 + 2 = 3 \checkmark$$

How do we solve radical equations?

Isolate the Radical

$$\sqrt{x} = y$$

Take the inverse of your radical or rational exponent on both sides

$$(\sqrt{\quad})^2 \quad \left((\quad)^{2/3} \right)^{3/2}$$

If quadratic term remains get zero on one side

If linear solve for X.

Check for Extraneous Solutions

Factor

$$\begin{array}{c} a \cdot c \\ \times \\ + \\ b \end{array}$$

Find zeros

Set equal to zero

Check for extraneous solutions

Substitute back in original equation