

3-6 Clearing an Equation of Fractions or Decimals

- To get rid of fractions, multiply equation by the LCD.
- To get rid of decimals, multiply to the appropriate power of 10.

1000	100	10	0	0.1	0.01	0.001
Thousands	<i>hundreds</i>	<i>tens</i>		<i>tenths</i>	<i>hundredths</i>	<i>thousandths</i>

$$0.001 \times 1000 = /$$

$$0.01 \times 100 = /$$

$$0.1 \times 10 = /$$

$$0.25 \times 100 = 25$$

$$0.342 \times 1000 = 342$$

Solve

$$\frac{1 \times 6}{3^p} + \frac{1 \times 6}{6} = \frac{3 \times 6}{2} = 2p + 1 = 9$$

LCD: 6

$$\frac{2p}{2} = \frac{8}{2}$$

$$p = 4$$

$$0.5r \times 10 + 1.5 \times 10 = 3.0 \times 10 = 5r + 15 = 30$$

$$\frac{5r}{5} = \frac{15}{5}$$

$$r = 3$$

$$\frac{7x^6}{8x} + \frac{3x^6}{4} = \frac{1x^6}{2x} + \frac{3x^6}{2}$$

LCD: 8

$$\begin{array}{r|l} 7x+6 & 4x+12 \\ -6 & -6 \\ \hline \end{array}$$

$$\begin{array}{r|l} 7x & 4x+6 \\ -4x & -4x \\ \hline \end{array}$$

$$26.45 = 4.2x + 1.25$$

$$4.2x + 1.25 = 26.45$$

$$\begin{array}{r} 420x + 125 = 2645 \\ -125 \quad -125 \\ \hline \end{array}$$

$$\frac{3x}{3} = \frac{6}{3} \quad \boxed{x=2}$$

$$\begin{array}{r} 420x = 2520 \\ \hline 420 \quad 420x = 6 \end{array}$$

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