

# M8 - 10.4 - " $\frac{ax}{bx} = \frac{c}{d}$ " Cross Multiply Notes

Solve for x, by multiplying both sides by the opposite denominator.

$$\frac{x}{6} = \frac{4}{3}$$
~~$$\frac{x}{6} = \frac{4}{3}$$~~

$$3 \times x = 4 \times 6$$

$$3x = 24$$

$$\frac{3x}{3} = \frac{24}{3}$$

$$x = 8$$

Denominators Multiply to Opposite Side Numerator

Divide both sides by 3

Check Answer

$$\frac{x}{6} = \frac{4}{3}$$

$$\frac{8}{6} = \frac{4}{3}$$

$$\frac{6}{4} = \frac{3}{4}$$

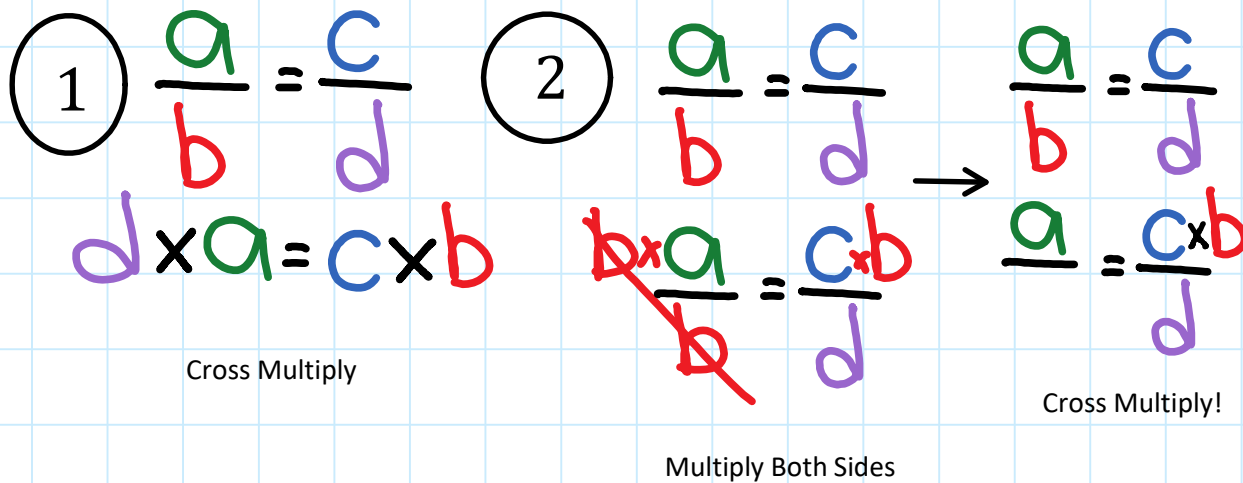
$$\frac{3}{3} = \frac{3}{3} \quad \checkmark$$

Short Form

$$\frac{x}{6} = \frac{4}{3}$$

$$3 \times x = 4 \times 6$$

...



Equivalent Fractions	Algebra	Cross Multiplication
$\frac{x}{2} = 4$ $\frac{x}{2} = \frac{4}{1}$ $\frac{x}{2} = \frac{4 \times 2}{1 \times 2}$ $\frac{x}{2} = \frac{8}{2}$ <del><math>\frac{x}{2} = \frac{8}{2}</math></del> $x = 8$	$\frac{x}{2} = 4$ $\frac{x}{2} = \frac{4}{1}$ $2 \times \frac{x}{2} = \frac{4}{1} \times 2$ <del><math>2 \times \frac{x}{2} = \frac{4}{1} \times 2</math></del> $x = 4 \times 2$ $x = 8$	$\frac{x}{2} = 4$ <del><math>\frac{x}{2} = \frac{4}{1}</math></del> $1 \times x = 4 \times 2$ $1x = 8$ $x = 8$
$\frac{x}{2} = 4$ $\frac{x}{2} = \frac{8}{1}$ <del><math>\frac{x}{2} = \frac{8}{1}</math></del> $x = 8$	$\frac{x}{2} = 4 \times 2$ $\frac{x}{2} = 8$	$\frac{x}{2} = \frac{4}{1}$ $1x = 4 \times 2$ $x = 8$