

SOLVING EQUATIONS USING THE DISTRIBUTIVE PROPERTY

The distributive property looks like this:

$$6(x + 3) = 6x + 18 \quad (\text{multiplication})$$

• To solve equations

- Get rid of brackets by doing the distributive property

- Then, proceed as you would (with whatever method you prefer)

Example:

$$5(x - 8) = 10 \quad - \text{get rid of brackets}$$

$$5(x - 8) = 10$$

$$5x - 40 = 10$$

$$5x = 10 + 40 \Rightarrow 5x = 50$$

$$5x = 50 \Rightarrow x = \frac{50}{5} \Rightarrow \boxed{x = 10}$$

check:

$$5(10 - 8) = 5(2) = 10$$

$$\boxed{10 = 10}$$

It checks.