

10.2 Key Concepts 2 Solving Equations Involving Brackets Worked Example

Example: Solve for x : $7(x + 2) = 5(2x + 4)$.

Solution: Remove the brackets. Then, collect variable terms on one side and constant terms on the other.

$$7(x + 2) = 5(2x + 4)$$

$$7x + 14 = 10x + 20$$

$$7x - 10x = 20 - 14$$

$$-3x = 6$$

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

$$x = -2$$

Practice:

1. Solve for y : $3(3y - 1) = 2(y + 9)$.

2. Solve for t : $4(3t + 1) = 5(1 + 2t)$.

Answers: 1. $y = 3$, 2. $t = \frac{1}{2}$