10.1 Key Concepts 4 Checking Solutions to Equations Worked Example

Example: Check whether $x = -1$ is a solution for $3x - 2 = 7$.

Solution: Substitute $x = -1$ into both sides of the equation.

L.S. $= 3x - 2$ R.S. $= 7$

$= 3(-1) - 2$

$= -3 - 2$

$= -5$

Since the L.S. $\neq$ R.S., $x = -1$ is not a solution for $3x - 2 = 7$.

Practice:

1. Check whether $y = 3$ is a solution for $8y + 5 = 29$.

2. Check whether $t = -2$ is a solution for $\frac{t}{3} + 1 = -2$.

Answers: 1. yes, 2. no