Name: _____ **Date:** _____

Check Solution: Answers

(1) Determine whether $x = 5$ is a solution to the equation $x - 4 = 1$:

$$\begin{aligned} \text{LHS} &= x - 4 & \text{RHS} &= 1 \\ &= 5 - 4 \\ &= 1 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 5$ is a solution to the equation.

(2) Determine whether $x = 11$ is a solution to the equation $x - 3 = 7$:

$$\begin{aligned} \text{LHS} &= x - 3 & \text{RHS} &= 7 \\ &= 11 - 3 \\ &= 8 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 11$ is not a solution to the equation.

(3) Determine whether $x = 6$ is a solution to the equation $x - 5 = 3$:

$$\begin{aligned} \text{LHS} &= x - 5 & \text{RHS} &= 3 \\ &= 6 - 5 \\ &= 1 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 6$ is not a solution to the equation.

(4) Determine whether $x = 20$ is a solution to the equation $x - 8 = 10$:

$$\begin{aligned} \text{LHS} &= x - 8 & \text{RHS} &= 10 \\ &= 20 - 8 \\ &= 12 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 20$ is not a solution to the equation.

(5) Determine whether $x = 15$ is a solution to the equation $x - 9 = 5$:

$$\begin{aligned} \text{LHS} &= x - 9 & \text{RHS} &= 5 \\ &= 15 - 9 \\ &= 6 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 15$ is not a solution to the equation.

(6) Determine whether $x = 17$ is a solution to the equation $x - 6 = 8$:

$$\begin{aligned} \text{LHS} &= x - 6 & \text{RHS} &= 8 \\ &= 17 - 6 \\ &= 11 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 17$ is not a solution to the equation.

(7) Determine whether $x = 16$ is a solution to the equation $x - 9 = 10$:

$$\begin{aligned} \text{LHS} &= x - 9 & \text{RHS} &= 10 \\ &= 16 - 9 \\ &= 7 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 16$ is not a solution to the equation.

(8) Determine whether $x = 11$ is a solution to the equation $x - 10 = 1$:

$$\begin{aligned} \text{LHS} &= x - 10 & \text{RHS} &= 1 \\ &= 11 - 10 \\ &= 1 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 11$ is a solution to the equation.

(9) Determine whether $x = 7$ is a solution to the equation $x - 4 = 3$:

$$\begin{aligned} \text{LHS} &= x - 4 & \text{RHS} &= 3 \\ &= 7 - 4 \\ &= 3 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 7$ is a solution to the equation.

(10) Determine whether $x = 11$ is a solution to the equation $x - 10 = 1$:

$$\begin{aligned} \text{LHS} &= x - 10 & \text{RHS} &= 1 \\ &= 11 - 10 \\ &= 1 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 11$ is a solution to the equation.

(11) Determine whether $x = 15$ is a solution to the equation $x - 5 = 10$:

$$\begin{aligned} \text{LHS} &= x - 5 & \text{RHS} &= 10 \\ &= 15 - 5 \\ &= 10 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 15$ is a solution to the equation.

(12) Determine whether $x = 10$ is a solution to the equation $x - 1 = 10$:

$$\begin{aligned} \text{LHS} &= x - 1 & \text{RHS} &= 10 \\ &= 10 - 1 \\ &= 9 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 10$ is not a solution to the equation.

(13) Determine whether $x = 10$ is a solution to the equation $x - 9 = 1$:

$$\begin{aligned} \text{LHS} &= x - 9 & \text{RHS} &= 1 \\ &= 10 - 9 \\ &= 1 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 10$ is a solution to the equation.

(14) Determine whether $x = 9$ is a solution to the equation $x - 5 = 1$:

$$\begin{aligned} \text{LHS} &= x - 5 & \text{RHS} &= 1 \\ &= 9 - 5 \\ &= 4 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 9$ is not a solution to the equation.

(15) Determine whether $x = 15$ is a solution to the equation $x - 8 = 7$:

$$\begin{aligned} \text{LHS} &= x - 8 & \text{RHS} &= 7 \\ &= 15 - 8 \\ &= 7 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 15$ is a solution to the equation.

(16) Determine whether $x = 10$ is a solution to the equation $x - 7 = 3$:

$$\begin{aligned} \text{LHS} &= x - 7 & \text{RHS} &= 3 \\ &= 10 - 7 \\ &= 3 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 10$ is a solution to the equation.

(17) Determine whether $x = 12$ is a solution to the equation $x - 8 = 4$:

$$\begin{aligned} \text{LHS} &= x - 8 & \text{RHS} &= 4 \\ &= 12 - 8 \\ &= 4 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 12$ is a solution to the equation.

(18) Determine whether $x = 9$ is a solution to the equation $x - 4 = 2$:

$$\begin{aligned} \text{LHS} &= x - 4 & \text{RHS} &= 2 \\ &= 9 - 4 \\ &= 5 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 9$ is not a solution to the equation.

(19) Determine whether $x = 8$ is a solution to the equation $x - 3 = 4$:

$$\begin{aligned} \text{LHS} &= x - 3 & \text{RHS} &= 4 \\ &= 8 - 3 \\ &= 5 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 8$ is not a solution to the equation.

(20) Determine whether $x = 17$ is a solution to the equation $x - 9 = 8$:

$$\begin{aligned} \text{LHS} &= x - 9 & \text{RHS} &= 8 \\ &= 17 - 9 \\ &= 8 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 17$ is a solution to the equation.