Name: _____ **Date:** _____

Check Solution: Answers

(1) Determine whether $x = 32$ is a solution to the equation $\frac{x}{4} = 8$:

$$\begin{aligned} \text{LHS} &= \frac{x}{4} \qquad \text{RHS} = 8 \\ &= \frac{32}{4} \\ &= 8 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 32$ is a solution to the equation.

(2) Determine whether $x = 20$ is a solution to the equation $\frac{x}{10} = 2$:

$$\begin{aligned} \text{LHS} &= \frac{x}{10} \qquad \text{RHS} = 2 \\ &= \frac{20}{10} \\ &= 2 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 20$ is a solution to the equation.

(3) Determine whether $x = 73$ is a solution to the equation $\frac{x}{8} = 9$:

$$\begin{aligned} \text{LHS} &= \frac{x}{8} \qquad \text{RHS} = 9 \\ &= \frac{73}{8} \\ &= 9.125 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 73$ is not a solution to the equation.

(4) Determine whether $x = 21$ is a solution to the equation $\frac{x}{4} = 5$:

$$\begin{aligned} \text{LHS} &= \frac{x}{4} \qquad \text{RHS} = 5 \\ &= \frac{21}{4} \\ &= 5.25 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 21$ is not a solution to the equation.

(5) Determine whether $x = 40$ is a solution to the equation $\frac{x}{4} = 10$:

$$\begin{aligned} \text{LHS} &= \frac{x}{4} \qquad \text{RHS} = 10 \\ &= \frac{40}{4} \\ &= 10 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 40$ is a solution to the equation.

(6) Determine whether $x = 21$ is a solution to the equation $\frac{x}{4} = 6$:

$$\begin{aligned} \text{LHS} &= \frac{x}{4} \qquad \text{RHS} = 6 \\ &= \frac{21}{4} \\ &= 5.25 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 21$ is not a solution to the equation.

(7) Determine whether $x = 16$ is a solution to the equation $\frac{x}{8} = 2$:

$$\begin{aligned} \text{LHS} &= \frac{x}{8} \qquad \text{RHS} = 2 \\ &= \frac{16}{8} \\ &= 2 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 16$ is a solution to the equation.

(8) Determine whether $x = 9$ is a solution to the equation $\frac{x}{3} = 3$:

$$\begin{aligned} \text{LHS} &= \frac{x}{3} \qquad \text{RHS} = 3 \\ &= \frac{9}{3} \\ &= 3 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 9$ is a solution to the equation.

(9) Determine whether $x = 30$ is a solution to the equation $\frac{x}{10} = 3$:

$$\begin{aligned} \text{LHS} &= \frac{x}{10} \qquad \text{RHS} = 3 \\ &= \frac{30}{10} \\ &= 3 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 30$ is a solution to the equation.

(10) Determine whether $x = 21$ is a solution to the equation $\frac{x}{3} = 7$:

$$\begin{aligned} \text{LHS} &= \frac{x}{3} \qquad \text{RHS} = 7 \\ &= \frac{21}{3} \\ &= 7 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 21$ is a solution to the equation.

(11) Determine whether $x = 25$ is a solution to the equation $\frac{x}{9} = 3$:

$$\begin{aligned} \text{LHS} &= \frac{x}{9} \qquad \text{RHS} = 3 \\ &= \frac{25}{9} \\ &= 2.778 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 25$ is not a solution to the equation.

(12) Determine whether $x = 30$ is a solution to the equation $\frac{x}{3} = 10$:

$$\begin{aligned} \text{LHS} &= \frac{x}{3} \qquad \text{RHS} = 10 \\ &= \frac{30}{3} \\ &= 10 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 30$ is a solution to the equation.

(13) Determine whether $x = 5$ is a solution to the equation $\frac{x}{4} = 2$:

$$\begin{aligned} \text{LHS} &= \frac{x}{4} \qquad \text{RHS} = 2 \\ &= \frac{5}{4} \\ &= 1.25 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 5$ is not a solution to the equation.

(14) Determine whether $x = 54$ is a solution to the equation $\frac{x}{9} = 6$:

$$\begin{aligned} \text{LHS} &= \frac{x}{9} \qquad \text{RHS} = 6 \\ &= \frac{54}{9} \\ &= 6 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 54$ is a solution to the equation.

(15) Determine whether $x = 18$ is a solution to the equation $\frac{x}{2} = 9$:

$$\begin{aligned} \text{LHS} &= \frac{x}{2} \qquad \text{RHS} = 9 \\ &= \frac{18}{2} \\ &= 9 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 18$ is a solution to the equation.

(16) Determine whether $x = 40$ is a solution to the equation $\frac{x}{5} = 8$:

$$\begin{aligned} \text{LHS} &= \frac{x}{5} \qquad \text{RHS} = 8 \\ &= \frac{40}{5} \\ &= 8 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 40$ is a solution to the equation.

(17) Determine whether $x = 41$ is a solution to the equation $\frac{x}{10} = 4$:

$$\begin{aligned} \text{LHS} &= \frac{x}{10} \qquad \text{RHS} = 4 \\ &= \frac{41}{10} \\ &= 4.1 \end{aligned}$$

$\therefore$ Since LHS $\neq$ RHS, $x = 41$ is not a solution to the equation.

(18) Determine whether $x = 36$ is a solution to the equation $\frac{x}{9} = 4$:

$$\begin{aligned} \text{LHS} &= \frac{x}{9} \qquad \text{RHS} = 4 \\ &= \frac{36}{9} \\ &= 4 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 36$ is a solution to the equation.

(19) Determine whether $x = 20$ is a solution to the equation $\frac{x}{5} = 4$:

$$\begin{aligned} \text{LHS} &= \frac{x}{5} \qquad \text{RHS} = 4 \\ &= \frac{20}{5} \\ &= 4 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 20$ is a solution to the equation.

(20) Determine whether $x = 20$ is a solution to the equation $\frac{x}{5} = 4$:

$$\begin{aligned} \text{LHS} &= \frac{x}{5} \qquad \text{RHS} = 4 \\ &= \frac{20}{5} \\ &= 4 \end{aligned}$$

$\therefore$ Since LHS = RHS, $x = 20$ is a solution to the equation.