

Warm - UP

5/6/2019

Evaluate the supplied value to decide if it is or is not a solution

$$3(x - 1) + 2 = x + 4; \{2\}$$

$$3(2-1) + 2 \quad | \quad 2+4$$

$$3(1) + 2 \quad | \quad 6$$

$$3 + 2 = 5$$

$$5 \neq 6 \quad \text{No}$$

5.1.2 The Idea of an Equivalent Equation

Example

Solve and Check

$$\begin{array}{r} \underline{6y} - \underline{4y} = \underline{-6} + \underline{2} \\ \underline{2} \cdot \underline{4} \quad \quad \quad \underline{-4} \\ \hline \underline{2} \end{array}$$

$y = -2$

$$\begin{array}{r} \sim -2 \sim \\ 6(-2) + 4(-2) = -6 + 2 \\ -12 + 8 = -4 \\ -4 = -4 \text{ Yes} \end{array}$$

Example

Solve and Check

$$2(t+1) - 2t = 3(t-1) - 2t + 3$$

$2t + 2 - 2t = 3t - 3 - 2t + 3$

$2 = t$

$t = 2$

Checking

$$2(2+1) - 2(2) = 3(2-1) - 2(2) + 3$$
$$2(3) - 2(2)$$
$$6 - 4$$

$$= 3(1) - 4 + 3$$
$$3 - 4 + 3$$

2	2
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Example

Solve and Check

$$-5(k+1) + 3(2k+1) - 2 = 3 - 4$$
$$\underline{-5k} + \underline{5} + \underline{6k} + \underline{3} - 2 = 3 - 4$$

$$k = -1$$

$$-5(-1+1) + 3(2 \cdot -1 + 1) - 2 = 3 - 4$$

$$-5(-2) + 3(-3) - 2 \stackrel{?}{=} -1$$

$$10 + -9 - 2 \stackrel{?}{=} -1$$

$$-1 = -1 \quad \checkmark$$

Homework (due Thu)
p. 135-136 (1 - 10)