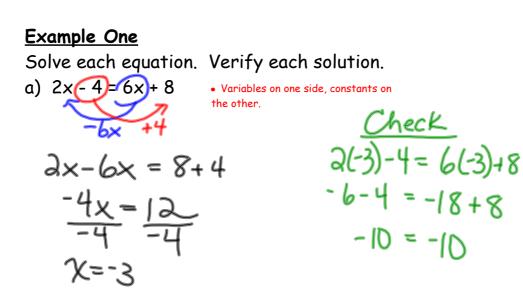
4.3 - Equation-Solving Strategies

<u>Key Ideas</u>

- 1. Use inverse operations to group the variable terms on one side of the equation and constant terms on the other.
- 2. Use the lowest common denominator to eliminate fractions in the equation.
- 3. Expand brackets (if they exist) before isolating for the variable.
- 4. Always check your answer by substituting it back into the original equation to see if LS = RS.



Solve each equation. Verify each solution.

a)
$$\frac{r+2}{7} = \frac{2}{3}$$

• MULITPLY EVERY TERM by the common denominator.

1. Multiply all terms . Variables on one side, constants on the other. by the common denominator.

2 Expand brackets. 3r+6=147

$$3r = 14 - 6$$

 $3r = 8$
4. Isolate for variable.
 $\frac{3r}{3} = \frac{8}{3}, r = 2.5$

4.3 Equation Solving Strategies.notebook

b)
$$\frac{w-1}{6} = \frac{3w}{8}$$

1. Multiply all terms
by common denominator.
• Variables on one side, constants on
the other.
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the other.
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<u>Complete</u>: p. 220 - 223 # 5, 7, 8, 11, 12ace.