Chapter 2 Equations in One Variable

5 **Solve $15 - \frac{w}{4} = 28$. Check your solution.**

$15 - \dfrac{w}{4} = 28$ Write the equation.

$15 + \left(-\dfrac{w}{4}\right) = 28$ Rewrite the left side as addition.

$\underline{-15 \qquad\qquad = -15}$ Subtraction Property of Equality

$-\dfrac{w}{4} = 13$ Simplify.

$(-4)\left(-\dfrac{w}{4}\right) = 13(-4)$ Multiplication Property of Equality

$w = -52$ Simplify.

Check the solution by replacing w with -52.

$15 - \dfrac{w}{4} = 28$ Write the equation.

$15 - \dfrac{-52}{4} \overset{?}{=} 28$ Replace w with -52.

$15 - (-13) \overset{?}{=} 28$ Divide.

$28 = 28 \checkmark$ The sentence is true.

7 **Larina received a $50 gift card to an online store. She wants to purchase some bracelets that cost $8 each. There will be an $10 overnight delivery fee. Solve $8n + 10 = 50$ to find the number of bracelets she can purchase.**

$8n + 10 = 50$ Write the equation.

$8n + 10 - 10 = 50 - 10$ Subtraction Property of Equality

$8n = 40$ Simplify.

$\dfrac{8n}{8} = \dfrac{40}{8}$ Division Property of Equality

$n = 5$ Simplify.

So, Larina can purchase 5 bracelets.

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