Do Now

Translate, solve, and check:

$$5 \quad x \quad + \quad 19 = 39$$

1) Five times a number increased by 19 equals 39. What is that number? Let x = a number

$$5x + 19 = 39$$
$$ -19 \; -19$$
$$\frac{5x}{5} = \frac{20}{5} \qquad \boxed{x = 4}$$

check
$$5x + 19 = 39$$
$$5(4) + 19 = 39$$
$$20 + 19 = 39$$
$$39 = 39 \checkmark$$

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Homework Answers

1) $2n = -16$, $\{-8\}$

2) $n - 5 = 24$, $\{29\}$

3) $2n + 13 = 31$, $\{9\}$

4) $2 = \dfrac{x}{9} + 4$, $\{-18\}$

5) $\dfrac{3}{5}n = 27$, $\{-45\}$

6) $17 = 7n - 4$, $\{3\}$

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Equation Word Problems

When working with equation word problems

1) Read the problem and see what it is asking

2) Identify the operations and numbers being used

3) Write a "let" statement to identify the variable

4) Translate, solve, and check (See if answer

makes sense)

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1) Jane spent $42 for shoes. This was $14 less than twice what she spent for a shirt. How much was the shirt?

Let x = Price of Shirt

$$42 = 2x - 14$$
$$+14 \qquad +14$$
$$\frac{56}{2} = \frac{2x}{2}$$
$$28 = x$$

The Shirt was $28

CK
$$42 = 2x - 14$$
$$42 = 2(28) - 14$$
$$42 = 56 - 14$$
$$42 = 42 \checkmark$$

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2) Ann took a taxi home from the airport. The taxi fare was $2.10 per mile, and she gave the driver a tip of $5. Ann paid a total of $49.10. How far, in miles, does Ann live from the airport.

Let x = miles from airport

$$49.10 = 2.10x + 5$$
$$-5 \qquad\qquad -5$$
$$44.10 = 2.10x$$
$$\frac{44.10}{2.10} = \frac{2.10x}{2.10}$$
$$21 = x$$

CK
$$49.10 = 2.10x + 5$$
$$49.10 = 2.10(21) + 5$$
$$49.10 = 44.1 + 5$$
$$49.10 = 49.10 ✓$$

Ann lives 21 miles from airport

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8) You have $60 and your sister has $120. You are saving $7 per week and your sister is saving $5 per week. How long will it be before you and your sister have the same amount of money?

Let x = number of weeks

$$7x + 60 = 5x + 120$$
$$-5x \qquad\qquad -5x$$
$$2x + 60 = 120$$
$$-60 \quad -60$$
$$\frac{2x}{2} = \frac{60}{2}$$
$$x = 30$$

30 weeks My sister and I will have same money

Oct 4-7:45 AM

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