

Numbers 2 * Word Problems 2A

1. A 10 foot board is cut into 2 pieces. Each piece is the same length. How long is each piece?

$$\begin{array}{c} x \qquad x \\ \text{-----}| \text{-----} \quad 10\text{ft} \end{array}$$

$$2x = 10\text{ft} \qquad x = 5\text{ft} \qquad \text{Check! First} = 5\text{ft} \quad \text{Second} = 5\text{ft} \quad \text{Board} = 10\text{ft}$$

2. A 15 foot board is cut into 2 pieces. One piece is 3 ft more than the other. How long is each piece?

$$\begin{array}{c} x + 3 \qquad x \\ \text{-----}| \text{-----} \quad 15\text{ft} \end{array}$$

$$(2x)+3 = 15\text{ft} \qquad 2x=12\text{ft} \quad x=6\text{ft} \quad \text{Check! First} = 6+3=9\text{ft} \quad \text{Second} = 6\text{ft} \quad \text{Board} = 15\text{ft}$$

3. A 21 foot board is cut into 2 pieces. One piece is twice the other in length? How long is each piece?

$$\begin{array}{c} x + x \qquad x \\ \text{-----}| \text{-----} \quad 21\text{ft} \end{array}$$

$$(3x) = 21\text{ft} \qquad x=7\text{ft} \quad \text{Check! First} = 7+7=14\text{ft} \quad \text{Second} = 7\text{ft} \quad \text{Board} = 21\text{ft}$$

4. A 28 foot board is cut into 2 pieces. One is 4 ft more than twice the other. How long is each piece?

$$\begin{array}{c} x + x + 4 \qquad x \\ \text{-----}| \text{-----} \quad 28\text{ft} \end{array}$$

$$(3x)+4 = 28\text{ft} \qquad 3x=24\text{ft} \quad x=8\text{ft} \quad \text{Check! First} = 8+8+4=20\text{ft} \quad \text{Second} = 8\text{ft} \quad \text{Board} = 28\text{ft}$$

5. A 14 foot board is cut into 2 pieces. Each piece is exactly the same length. How long is each piece?

$$\begin{array}{c} x \qquad x \\ \text{-----}| \text{-----} \quad 14\text{ft} \end{array}$$

$$(2x) = 14\text{ft} \qquad x=7\text{ft} \qquad \text{Check! First} = 7\text{ft} \quad \text{Second} = 7\text{ft} \quad \text{Board} = 14\text{ft}$$

6. A 13 foot board is cut into 2 pieces. One piece is 1 ft less than the other. How long is each piece?

$$\begin{array}{c} x - 1 \qquad x \\ \text{-----}| \text{-----} \quad 13\text{ft} \end{array}$$

$$(2x) - 1 = 13\text{ft} \quad 2x=14\text{ft} \quad x=7\text{ft} \quad \text{Check! First} = 7-1=6\text{ft} \quad \text{Second} = 7\text{ft} \quad \text{Board} = 13\text{ft}$$

7. A 27 foot board is cut into 2 pieces. One piece is half the other. How long is each piece?

$$\begin{array}{c} x \qquad x + x \\ \text{-----}| \text{-----} \quad 27\text{ft} \end{array}$$

$$(3x) = 27\text{ft} \qquad x=9\text{ft} \quad \text{Check! First} = 9\text{ft} \quad \text{Second} = 9+9 = 18\text{ft} \quad \text{Board} = 27\text{ft}$$

8. A 13 foot board is cut into 2 pieces. One is 2 less than half other? How long is each piece?

$$\begin{array}{c} x - 2 \qquad x + x \\ \text{-----}| \text{-----} \quad 13\text{ft} \end{array}$$

$$(3x) - 2 = 13\text{ft} \quad 3x=15\text{ft} \quad x=5\text{ft} \quad \text{Check! First} = 5-2 = 3\text{ft} \quad \text{Second} = 5+5 = 10\text{ft} \quad \text{Board} = 13\text{ft}$$