

Name: \_\_\_\_\_

## Solving Applied Problems

A 76 foot piece of wood is cut into three pieces. The length of the second piece is 5 feet longer than the first. The length of the third piece is 10 ft shorter than the first. What is the length of the three pieces

Answer:

A salesperson earns \$750 per month and a 5% commission on her total sales. If she earned \$2500 last month, what was the amount of her sales?

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Answer:

Piece one =  $x$

Piece two =  $x + 5$

Piece three =  $x - 10$

Total = Piece 1 + Piece 2 + Piece 3

$$76 = x + (x + 5) + (x - 10)$$

$$76 = 3x - 5$$

$$81 = 3x$$

$$27 = x$$

Side one = 27 ft

Side two =  $27 + 5 = 32$  ft

Side three =  $27 - 10 = 17$  ft

Check:  $27 + 32 + 17 = 76$  ft

A salesperson earns \$750 per month and a 5% commission on her total sales. If she earned \$2500 last month, what was the amount of her sales?

Answer:

$x$  = total sales

$0.05x$  is the amount of commission from total sales

$$2500 = \$750 + 0.05x$$

$$1750 = 0.05x$$

$$\$35,000 = x$$

Her total sales for the month were \$35,000.