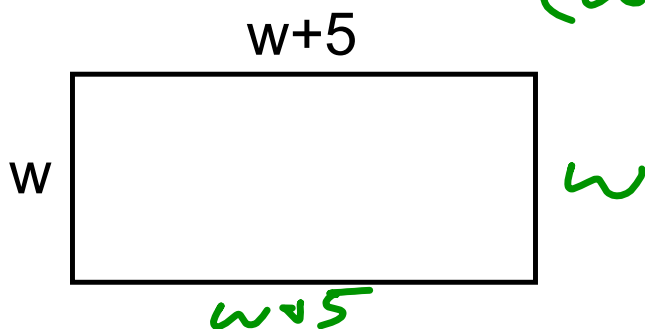


HW: Worksheet

**Warm up:**

Write and simplify an expression to represent the perimeter of the rectangle.



$$2(w+5) + 2w$$

$$w + (w+5) + w + (w+5)$$

$$w + w + 5 + w + w + 5$$

$$4w + 10$$

# HW Solutions

You went to the store with your friend. You bought 3 packs of gum and a bag of chips. Your friend bought two packs of gum. Write an expression to represent the total bill.

$$3g + c + 2g$$
$$\textcircled{5g + c}$$

You went to the gas station and put 18 gallons of gas in your car and 3 gallons of gas in a gas can. If your total bill was \$51.03, how much was the gas station charging for each gallon of gas?

$$18g + 3g = 51.03$$

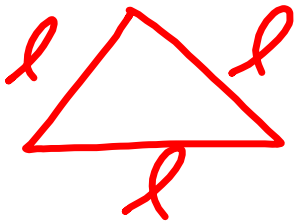
$$\begin{array}{r} 2.43 \\ 21 \overline{) 51.03} \\ \underline{-42} \phantom{0} \\ 90 \\ \underline{-84} \\ 63 \\ \underline{-63} \\ 0 \end{array}$$

$$\frac{21g = 51.03}{21}$$

$$g = 2.43$$

$$\text{\$}2.43$$

The perimeter of an equilateral triangle is 21.33cm. What is the length of each side of the triangle?



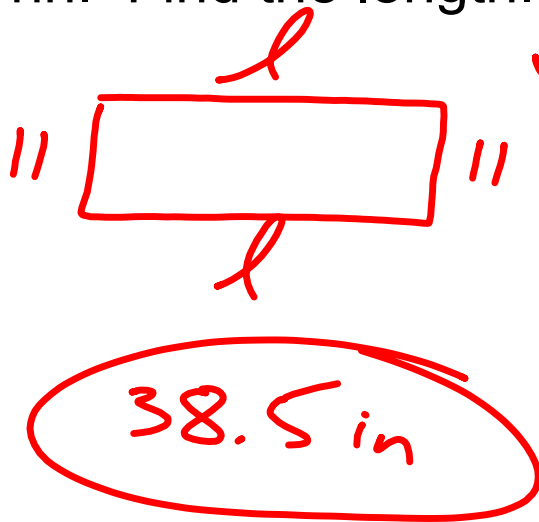
$$l + l + l = 21.33$$

$$\frac{3l}{3} = \frac{21.33}{3}$$

$$l = 7.11$$

$$7.11 \text{ cm}$$

The perimeter of a rectangle is 99in. Its width is 11in. Find the length.



$$\underbrace{11} + \underbrace{l} + \underbrace{11} + \underbrace{l} = 99$$

$$2l + 22 = 99$$
$$\begin{array}{r} -22 \quad -22 \\ \hline \end{array}$$

$$2l = 77$$
$$\begin{array}{r} \frac{2}{2} \quad \frac{77}{2} \\ \hline \end{array}$$

$$l = 38.5$$

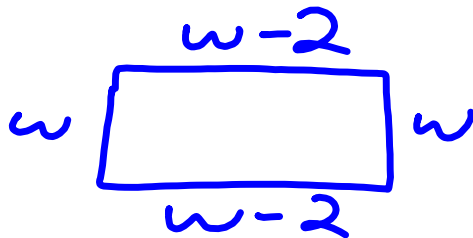
1) Write and simplify an expression to represent the perimeter of a rectangle that is 2in shorter than it is wide.

2) Mary and Tom stopped at Wawa for some food. Mary bought 3 bags of Sour Patch Kids and a vanilla milkshake. Tom bought 2 bags of Sour Patch Kids. If milkshakes cost \$2.20 and their total bill was \$10.70, how much does a bag of Sour Patch Kids cost?

3) A rectangular pool has a perimeter of 82ft. If the length is 28ft, what is the width?

4) You have a desk that is  $45\frac{1}{2}$  in wide and you want to place it in the middle of a wall that is  $71\frac{3}{4}$  in wide. How far from the edge of each wall should the desk be placed?

1) Write and simplify an expression to represent the perimeter of a rectangle that is 2 in shorter than it is wide.



$$\begin{aligned} &w + (w-2) + w + (w-2) \\ &w + w - 2 + w + w - 2 \\ &\quad 4w - 4 \end{aligned}$$



2) Mary and Tom stopped at Wawa for some food. Mary bought 3 bags of Sour Patch Kids and a vanilla milkshake. Tom bought 2 bags of Sour Patch Kids. If milkshakes cost \$2.20 and their total bill was \$10.70, how much does a bag of Sour Patch Kids cost?

$$3s + 2.20 + 2s = 10.70$$

$$5s + 2.20 = 10.70$$

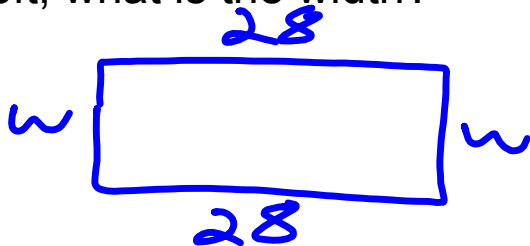
$$\begin{array}{r} -2.20 \\ -2.20 \end{array}$$

$$5s = 8.50$$

$$\begin{array}{r} \frac{5s}{5} = \frac{8.50}{5} \\ s = 1.70 \end{array}$$

\$1.70

3) A rectangular pool has a perimeter of 82ft. If the length is 28ft, what is the width?



$$w + 28 + w + 28 = 82$$

$$2w + 56 = 82$$

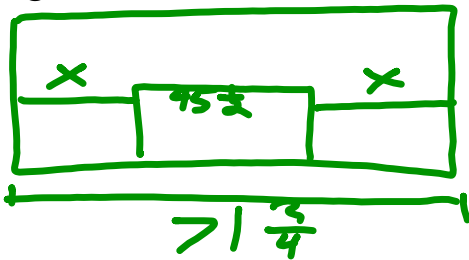
$$-56 \quad -56$$

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$$2w = 26 \quad w = 13$$

13 ft

4) You have a desk that is  $45\frac{1}{2}$  in wide and you want to place it in the middle of a wall that is  $71\frac{3}{4}$  in wide. How far from the edge of each wall should the desk be placed?



$13\frac{1}{8}$  in

$$x + 45\frac{1}{2} + x = 71\frac{3}{4}$$

$$2x + 45\frac{1}{2} = 71\frac{3}{4}$$

$$-45\frac{1}{2} \quad -45\frac{1}{2}$$

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$$\frac{2x}{2} = \frac{26\frac{1}{4}}{2}$$

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$$x = 13\frac{1}{8}$$

January 10, 2022

