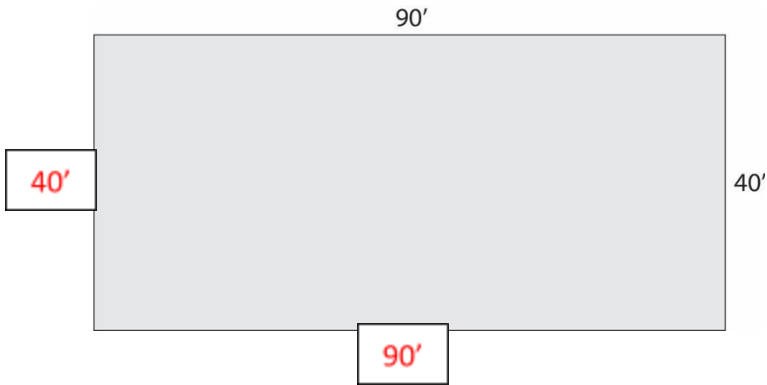


Finding Perimeter (Answer Key)

U1.L4

1. Determine the amount of fencing needed to surround the garden and show two ways to solve this.



The amount of fencing for the garden is

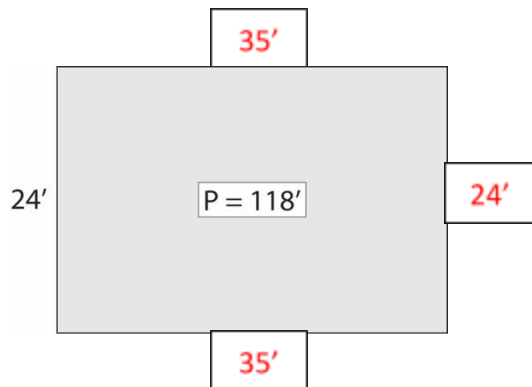
$$90' + 40' + 90' + 40' = 260'$$

The labels on the left show how students may label the diagram.

Sample missing dimension equation:

$$P = 2L + 2W \quad \text{OR} \quad P = 2(L + W)$$

2. Given the length of the garden below, write an equation to show how to figure out the missing (width) dimension.



The width of the garden is 35'.

The labels on the left show how students may label the diagram.

Sample missing dimension equations:

$$P - L - L = \text{Width of 2 sides}$$

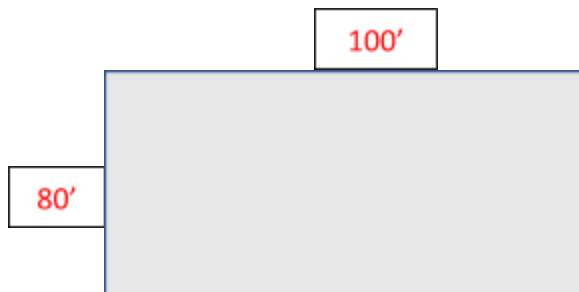
$$118 - 24 - 24 = 70$$

$$70 \text{ total width of both sides} \div 2 \text{ sides} = 35' \text{ (width of garden)}$$

$$\text{OR} \quad P = 2L + 2W$$

$$118 = 2(24) + 2(W)$$

3. Jake wants to fence in the yard around his property. Assuming that the gates are part of the fencing, how much fencing would he need if his property is 100 feet by 80 feet? Write an equation to show to figure the amount of fencing needed.



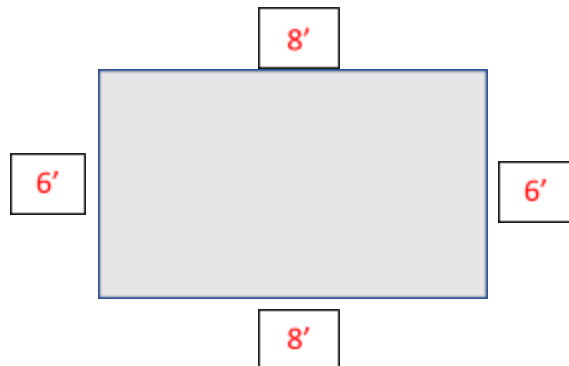
The amount of fencing for the property is $100' + 80' + 100' + 80' = 360'$

Sample equation to find the perimeter:

$$P = 2L + 2W \quad \text{OR} \quad P = 2(L + W)$$

$$P = 2(80) + 2(100) \quad \text{OR} \quad P = 2(80 + 100)$$

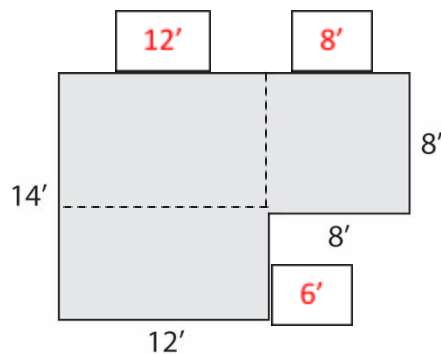
4. Demetria wants to trim a tablecloth. She has 80 feet of lace trim. She knows her tablecloth is 6' x 8'. Does she have enough trim? How do you know?



Demetria would need 28' of trim for one tablecloth, so she has more than enough trim.

$$P = 8 + 6 + 8 + 6 = 28'$$

5. Based on the dimensions below, what is the perimeter of the shape?



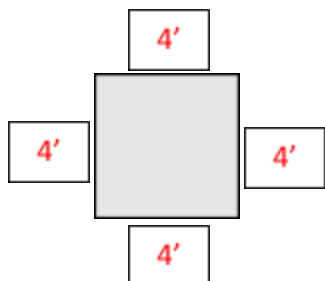
The perimeter of the shape is 68'.

$$P = 12 + 8 + 8 + 8 + 6 + 12 + 14$$

$$P = 68'$$

Students also could "shift" the dimensions of the lower-right corner to the outer edges of the other dimensions to make a large rectangle. Make sure students understand this works for perimeter because no new sides are created (only moved); however, it will not work for area because it creates more space in the shape.

6. Mary Jane decided to create an herb garden that was 4 feet on each side. What are some ways you could figure out the perimeter of her garden?



Sample answers:

$$P = 4 + 4 + 4 + 4 = 16'$$

$$P = 4(4') = 16'$$

$$P = 2(4 + 4) = 16'$$

$$P = 2(4) + 2(4) = 16'$$