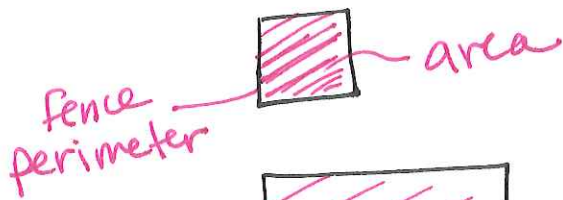


Section 9.7 - Area and Perimeter



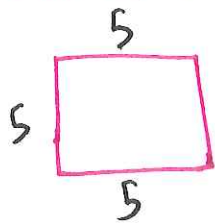
Perimeter - distance around the edge



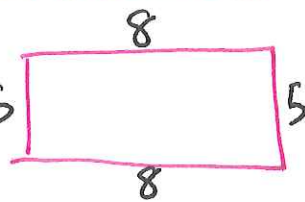
Area - space inside



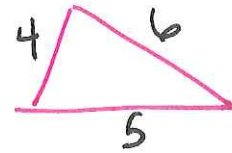
Perimeter Formulas



$$P = 4s$$



$$P = 2l + 2w$$



$$P = a + b + c$$

Add up all sides

$$P = 20 \text{ in}$$

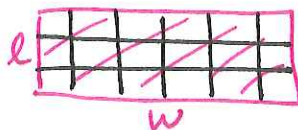
$$P = 5 + 5 + 8 + 8 = 26 \text{ in}$$

$$P = 15 \text{ in}$$

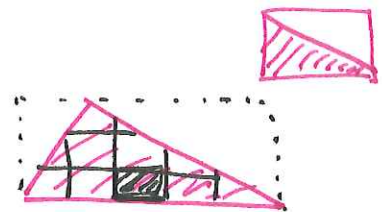
Area



$$A = s^2 \text{ units}^2$$

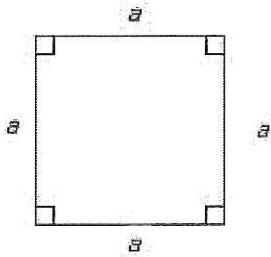


$$A = l \times w \text{ units}^2$$



$$A = \frac{1}{2} \cdot b \cdot h \text{ units}^2$$

1. Find the perimeter of the figure if $a = 8$ in.

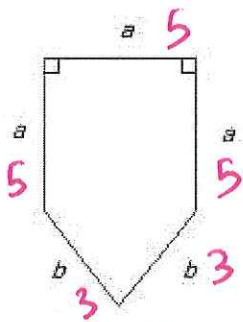


$$8 + 8 + 8 + 8 = 32 \text{ in}$$

$$4(8) = 32 \text{ in}$$

$P = \underline{32 \text{ in}}$

2. Find the perimeter of the figure if $a = 5$ in., $b = 3$ in.



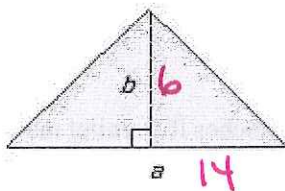
$$5 + 5 + 5 + 3 + 3$$

$$15 + 6$$

$$= 21 \text{ in}$$

$P = \underline{21 \text{ in}}$

3. Find the area of the shaded part of the figure if $a = 14$ in., $b = 6$ in.



$A = \underline{42 \text{ in}^2}$

$$A = \frac{1}{2} b \cdot h$$

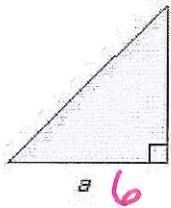
$$= \frac{1}{2} \cdot 14 \cdot 6$$

$$= 42 \text{ in}^2$$

Sq. in.

$$A = \frac{bh}{2}$$

4. Find the area of the shaded part of the figure if $a = 6$ cm, $b = 7$ cm.



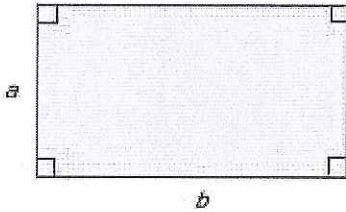
$$A = \frac{1}{2} b \cdot h$$

$$= \frac{1}{2} \cdot 6 \cdot 7$$

$$= 21 \text{ cm}^2$$

$A = \underline{21 \text{ cm}^2}$

5. Find the area of the shaded part of the figure if $a = 4$ cm, $b = 8$ cm.



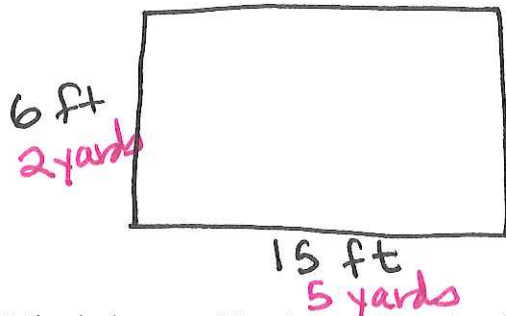
$$A = l \cdot w$$

$$= 8 \cdot 4$$

$$= 32 \text{ cm}^2$$

$A = \underline{32 \text{ cm}^2}$

6. A rectangular living room measures 6 by 15 feet. At \$38 per square yard, how much will it cost to carpet the room?



~~3 ft~~
3 feet in 1 yard

$$A = 10 \text{ yd}^2$$

$$10 \times \$38 = \$380$$

It would cost \$380.

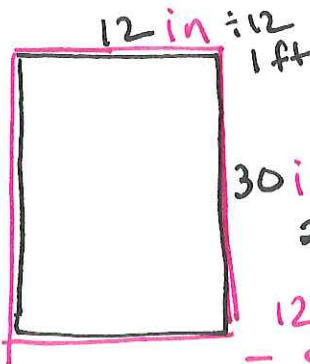
$$6 \times 15 = 90 \text{ ft}^2$$

$$90 \div 3 = 30$$

$$30 \div 3 = 10 \text{ yd}^2$$

$$10 \text{ yd}^2$$

7. What is the cost of framing a rectangular picture with dimensions of 30 inches by 12 inches if framing material costs \$8.65 per foot? Give your answer to the nearest cent.



$$\text{Perimeter} = 1 \text{ ft} + 1 \text{ ft} + 2.5 \text{ ft} + 2.5 \text{ ft}$$

$$= 7 \text{ ft}$$

$$7 \text{ ft} \cdot \$8.65/\text{ft}$$

$$= \$60.55$$

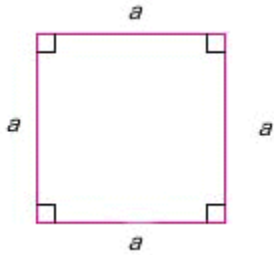
It would cost \$60.55.

$$12 + 12 + 30 + 30$$

$$= 84 \text{ inches}$$

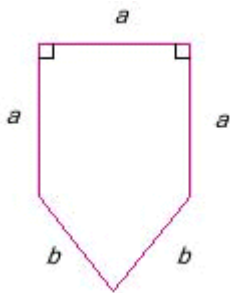
$$84 \div 12 = 7 \text{ ft}$$

1. Find the perimeter of the figure if $a = 8$ in.



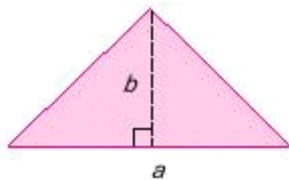
$P =$ _____

2. Find the perimeter of the figure if $a = 5$ in., $b = 3$ in.



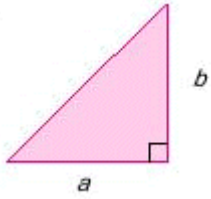
$P =$ _____

3. Find the area of the shaded part of the figure if $a = 14$ in., $b = 6$ in.



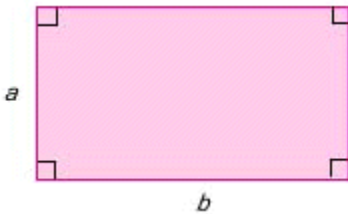
$A =$ _____

4. Find the area of the shaded part of the figure if $a = 6$ cm, $b = 7$ cm.



$A =$ _____

5. Find the area of the shaded part of the figure if $a = 4$ cm, $b = 8$ cm.



$A =$ _____

6. A rectangular living room measures 6 by 15 feet. At \$38 per square yard, how much will it cost to carpet the room?
7. What is the cost of framing a rectangular picture with dimensions of 30 inches by 12 inches if framing material costs \$8.65 per foot? Give your answer to the nearest cent.