Name _____   Date _____

1. Determine the perimeter and area of rectangles A and B.
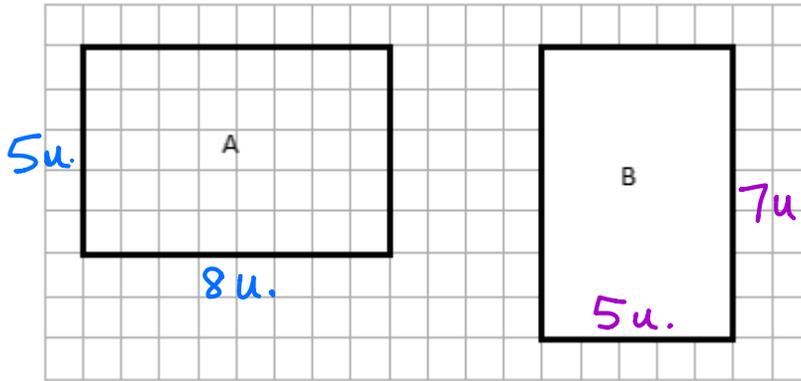
$A = l \times w$
$= 8 \times 5$
$= 40 \text{ sq. u.}$

$P = 2 \times (l + w)$
$= 2 \times (8 + 5)$
$= 2 \times 13$
$= 26 \text{ units}$

5u.

A

8 u.

B

7u

5u.

$A = l \times w$
$= 5 \times 7$
$= 35 \text{ sq. u.}$

$P = 2 \times (l + w)$
$= 2 \times (5 + 7)$
$= 2 \times 12$
$= 24 \text{ u.}$

   a.   A = __40 square units__   A = __35 square units__

       b.   P = __26 units__   P = __24 units__

2. Determine the perimeter and area of each rectangle.

   a.   b.   4 cm

7 cm
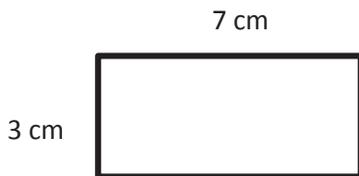
3 cm   P = __20 units__   9 cm   P = __26 units__
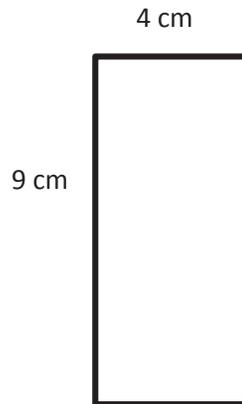
                          A = __21 square units__   A = __36 square units__

$P = 2 \times (l + w)$ $A = l \times w$
$= 2 \times (7 + 3)$
$= 2 \times 10$ $= 7 \times 3$
$= 20 \text{ u.}$ $= 21 \text{ sq. u.}$

$P = 2 \times (l + w)$ $A = l \times w$
$= 2 \times (4 + 9)$ $= 4 \times 9$
$= 2 \times 13$ $= 36 \text{ sq. u.}$
$= 26 \text{ units}$

3. Determine the perimeter of each rectangle.

a.

149 m

76 m
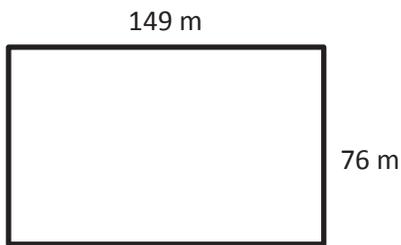
P = 450 meters ✓

$P = 2 \times (l + w)$

$= 2 \times (149 + 76)$

$= 2 \times 225$

$= 450$ u.

b.

2 m 10 cm

45 cm
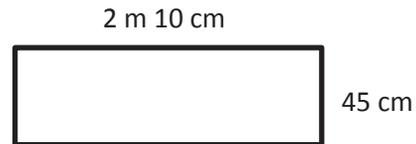
P = 570 centimeters

$P = 2 \times (l + w)$

$= 2 \times (210 + 45)$

$= 2 \times 255$

$= 510$ u.

4. Given the rectangle's area, find the unknown side length.

a.

6 cm

60 square cm   x cm

x = 10 cm

$A = l \times w$

$60 = 6 \times x$

$x = 10$ cm

b.

5 m

25 square m   x m

x = 5 m

$A = l \times w$

$25 = 5 \times x$

$x = 5$ m

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Lesson 1: Investigate and use the formulas for area and perimeter of rectangles.

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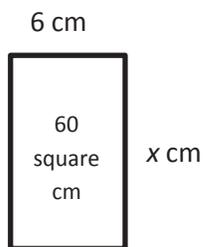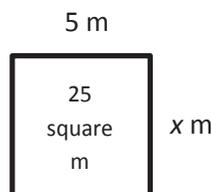
5. Given the rectangle's perimeter, find the unknown side length.

   a. P = 180 cm

   40 cm

   x cm
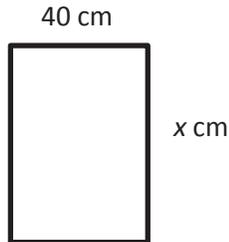
   x = _50 cm_

   $P = 2 \times (l + w)$
   $180 = 2 \times (40 + w)$
   $40 + w = 90$
   $w = 50$

   b. P = 1,000 m

   x m

   150 m
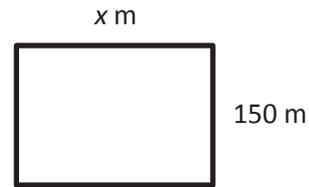
   x = _350 m_

   $P = 2 \times (l + w)$
   $1000 = 2 \times (x + 150)$
   $x + 150 = 500$
   $x = 350$

6. Each of the following rectangles has whole number side lengths. Given the area and perimeter, find the length and width.

   a. A = 32 square cm
       P = 24 cm

       l = _8 cm_

       32 square cm

       w = _4 cm_

   b. A = 36 square m
       P = 30 m

       w = _3 m_

       36 square m

       l = _12 m_

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