



## Du'aa for Studying & Learning

رَبِّ اشْرَحْ لِي صَدْرِي وَيَسِّرْ لِي أَمْرِي وَاخْلُلْ عُقْدَةً مِنْ لِسَانِي يَفْقَهُوا قَوْلِي



OH MY LORD! OPEN FOR ME MY CHEST (GRANT ME SELF-CONFIDENCE, CONTENTMENT, AND BOLDNESS), EASE MY TASK FOR ME, AND REMOVE THE IMPEDIMENT FROM MY SPEECH SO THEY MAY UNDERSTAND WHAT I SAY.



(SURAH TA-HA: 20:25-28)



اللَّهُمَّ لَا سَهْلَ إِلَّا مَا جَعَلْتَهُ سَهْلًا وَأَنْتَ تَجْعَلُ الْحَزْنَ إِذَا شِئْتَ سَهْلًا

OH ALLAH, THERE IS NO EASE EXCEPT IN THAT WHICH YOU HAVE MADE EASY, AND YOU MAKE THE DIFFICULTY, IF YOU WISH, EASY.

اللَّهُمَّ انْفَعِنِي بِمَا عَلَّمْتَنِي وَ عَلَّمْنِي مَا يَنْفَعُنِي

OH ALLAH! MAKE USEFUL FOR ME WHAT YOU TAUGHT ME AND TEACH ME KNOWLEDGE THAT WILL BE USEFUL TO ME.



رَبِّ زِدْنِي عِلْمًا

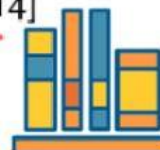


MY LORD! INCREASE ME IN KNOWLEDGE. [20:114]



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# Area and Perimeter

Area and perimeter are different ways of measuring a shape.

The **area** is the amount of space **inside the shape**.

The **perimeter** is the distance **around the edge**.

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

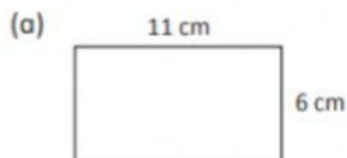
Class: \_\_\_\_\_



## Area and Perimeter

### Practice 1 Area of Rectangles and Squares

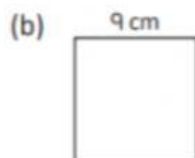
1. Find the area of each figure.



Area of the rectangle

$$= \boxed{\phantom{00}} \times \underline{6}$$

$$= \boxed{\phantom{00}} \text{ cm}^2$$

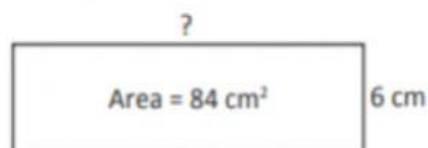


Area of the square

$$= \underline{9} \times \boxed{\phantom{00}}$$

$$= \boxed{\phantom{00}} \text{ cm}^2$$

2. The area of a rectangle is  $84 \text{ cm}^2$ . Its breadth is 6 cm. Find its length.



*Length  $\times$  Breadth = Area*

*Length = Area  $\div$   $\boxed{\phantom{00}}$*

*=  $84 \div \boxed{\phantom{00}}$*

*=  $\boxed{\phantom{00}}$  cm*

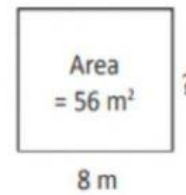
*The length of the rectangle is  $\boxed{\phantom{00}}$  cm*

3. A rectangle has an area of  $56 \text{ m}^2$ . Its length is  $8 \text{ m}$ . Find its breadth.

Length  $\times$  Breadth = Area

$$\begin{aligned} \text{Breadth} &= \text{Area} \div \text{Length} \\ &= 56 \div 8 \\ &= 7 \text{ m} \end{aligned}$$

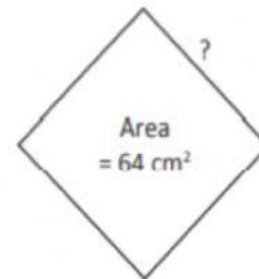
The breadth of the rectangle is  m



4. The area of a square is  $64 \text{ cm}^2$ . Find the length of one side of the square.  
(Hint: What number multiplied by itself is equal to 64?)

$$64 = \text{side} \times \text{side}$$

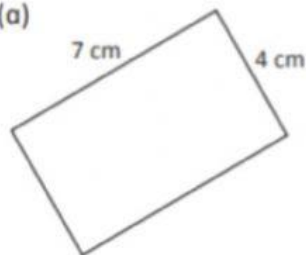
The length of one side of the square is  cm



## Practice 2 Perimeter of Rectangles and Squares

1. Find the perimeter of each figure.

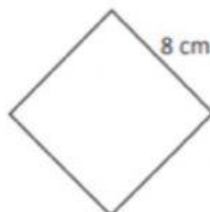
(a)



Perimeter of rectangle

$$\begin{aligned} &= 7 + \text{side} + 7 + \text{side} \\ &= \text{side} \times 2 + 14 \end{aligned}$$

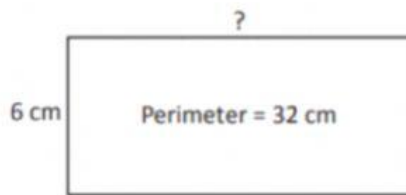
(b)



Perimeter of square =  $4 \times \text{side}$

$$\begin{aligned} &= 4 \times 8 \\ &= 32 \text{ cm} \end{aligned}$$

2. The perimeter of a rectangle is 32 cm. Its breadth is 6 cm. Find its length.



$$\text{Perimeter} = 2 (\text{Length} + \text{Breadth})$$

$$32 = 2 (\text{Length} + 6)$$



$$\frac{\quad}{2} = \text{Length} + 6$$

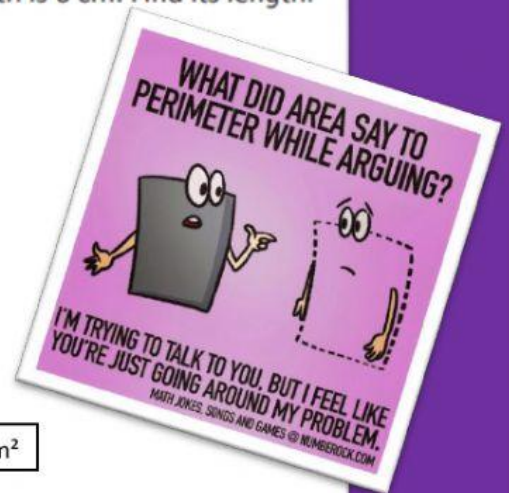
$$\text{* Its length is } \boxed{\quad} \text{ cm}^2$$



$$\frac{\quad}{2} = \text{Length} + 6$$



$$\frac{\quad}{2} - 6 = \text{Length}$$



3. The perimeter of a square is 20 cm. Find the length of one side of the square.

$$\text{Length of a side} = \text{Perimeter} \div 4$$

$$= \boxed{\quad} \div 4$$

$$= \boxed{\quad} \text{ cm}$$

$$\text{The length of one side of the square is } \boxed{\quad} \text{ cm}$$

$$\text{Perimeter} = 20 \text{ cm}$$

4. The area of a square garden is 100 m<sup>2</sup>.

(a) Find the length of each side of the garden.

(b) Find the perimeter of the garden.

$$(a) \quad 100 = \text{Length} \times \text{Length}$$

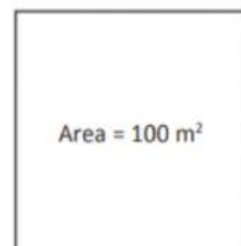
$$\text{Length} = \boxed{\quad} \text{ m}$$

$$\text{The length of each side of the garden is } \boxed{\quad} \text{ m}$$

$$(b) \quad \text{Perimeter} = 4 \times \text{Length}$$

$$= 4 \times \boxed{\quad} \text{ m}$$

$$\text{The perimeter of the garden is } \boxed{\quad} \text{ m}$$



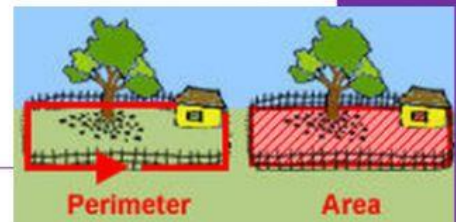
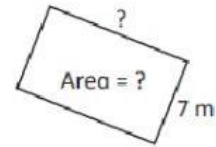


5. The perimeter of a rectangular carpet is 38 m. Its breadth is 7 m.

- (a) Find its length.  
(b) Find its area.

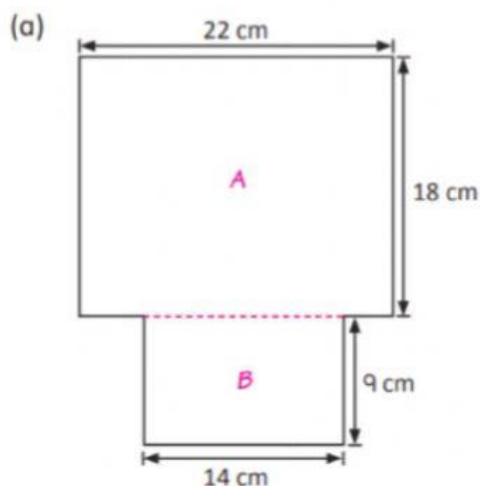
**Answer:**

- a) Its length is                      m.  
b) The area of the carpet is                       $\text{m}^2$

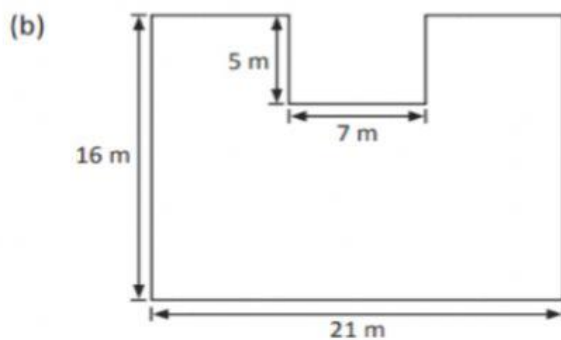


### Practice 3 Composite Figures

1. Find the area of each figure. (All lines meet at right angles.)

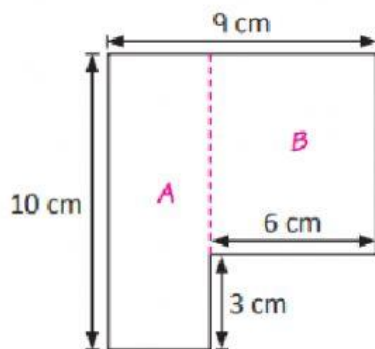


Area of A   $\text{cm}^2$   
Area of B   $\text{cm}^2$   
Area of figure   $\text{cm}^2$



Area of big rectangle   $\text{m}^2$   
Area of small rectangle   $\text{m}^2$   
Area of figure   $\text{m}^2$

2. Find the area of the figure. (All lines meet at right angles.)



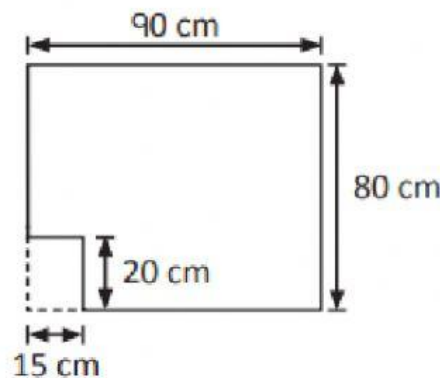
Area of A  cm<sup>2</sup>

Area of B  cm<sup>2</sup>

Area of figure  cm<sup>2</sup>

### Practice 4 Solving Word Problems

1. Rehana has a cardboard measuring 90 cm by 80 cm. She cuts out a small rectangular piece measuring 15 cm by 20 cm.
- (a) Find the area of the remaining cardboard.
- (b) Find the perimeter of the remaining cardboard.



(a) Area of cardboard =  $90 \times$    
 $=$   cm<sup>2</sup>

Area of small rectangle =  $15 \times$    
 $=$   cm<sup>2</sup>

Area of remaining cardboard

$$= \boxed{\phantom{000}} - \boxed{\phantom{000}}$$

$$= \boxed{\phantom{000}} \text{ cm}^2$$

The area of the remaining cardboard is  $\boxed{\phantom{000}} \text{ cm}^2$

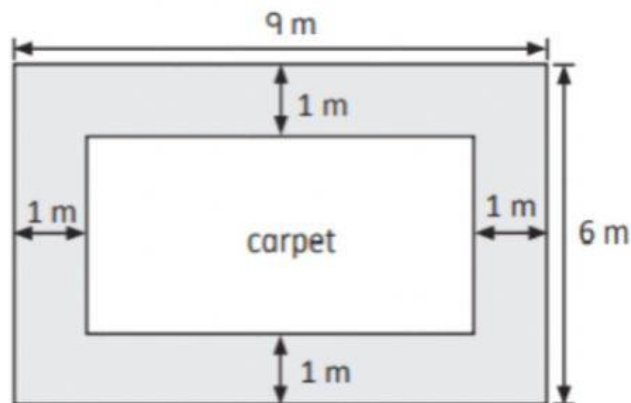
(b) Perimeter of remaining cardboard

$$= 90 + 80 + 75 + 20 + 15 + \boxed{\phantom{000}}$$

$$= \boxed{\phantom{000}} \text{ cm}$$

The perimeter of the remaining cardboard is  $\boxed{\phantom{000}} \text{ cm}$

2. A carpet is laid on a rectangular floor of length 9 m and breadth 6 m. This leaves a margin of width 1 m around the carpet. Find the area of the carpet.



Length of carpet =  $\boxed{9 - \phantom{00} - \phantom{00}}$   
=  $\boxed{\phantom{00}} \text{ m}$

Breadth of carpet =  $\boxed{6 - \phantom{00} - \phantom{00}}$   
=  $\boxed{\phantom{00}} \text{ m}$

Area of carpet =  $\boxed{7 \times \phantom{00}}$   
=  $\boxed{\phantom{000}} \text{ m}^2$