

Review Exercise 16

Q.1 Which of the following are true and which are false?

- | | | |
|-------|---|---------|
| (i) | Area of a figure means region enclosed by bounding lines of closed figures. | (True) |
| (ii) | Similar figures have same area. | (False) |
| (iii) | Congruent figures have same area. | (True) |
| (iv) | A diagonal of a parallelogram divides it into two non-congruent triangles. | (False) |
| (v) | Altitude of a triangle means perpendicular from vertex to the opposite side (base). | (True) |
| (vi) | Area of a parallelogram is equal to the product of base and height. | (True) |

Q.2 Find the area of the following.

(i)

Given

Length of rectangle = $\ell = 3\text{cm}$

Width of rectangle = $w = 6\text{cm}$

Required:

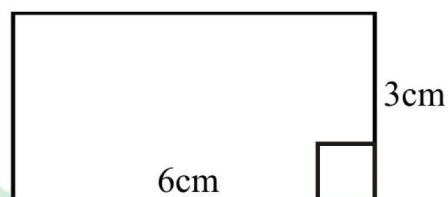
Area of rectangle = ?

Solution:

Area of rectangle = length \times width

$$= 3\text{cm} \times 6\text{cm}$$

$$\Rightarrow \text{Area of rectangle} = 18\text{ cm}^2$$



(ii)

Given

Length of square = $\ell = 4\text{cm}$

Required:

Area of square = ?

Solution:

Area of square = $\ell \times \ell$

$$= \ell^2$$

$$= (4\text{cm})^2$$

$$\Rightarrow \text{Area of square} = 16\text{cm}^2$$



(iii)

Given

Height of parallelogram = 4cm

Base of parallelogram = 8cm

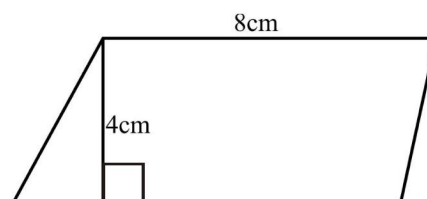
Required:

Area of parallelogram = ?

Solution:

Area of parallelogram = $b \times h$

$$= 8\text{cm} \times 4\text{cm}$$



\Rightarrow area of parallelogram = 32 cm^2

(iv)

Given:

Height of triangle = $h = 10 \text{ m}$

Base of triangle = $b = 16 \text{ cm}$

Required:

Area of triangle = ?

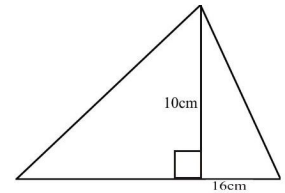
Solution:

$$\text{Area of triangle} = \frac{1}{2} \times b \times h$$

$$= \frac{1}{2} \times 16 \text{ cm} \times 10 \text{ cm}$$

$$= 8 \text{ cm} \times 10 \text{ cm}$$

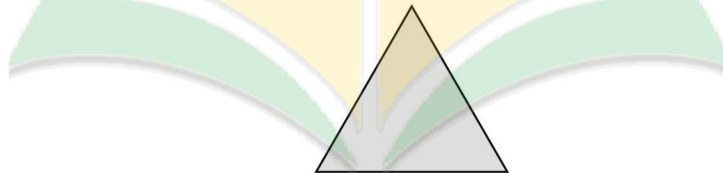
$$= 80 \text{ cm}^2$$



Q.3 Define the following

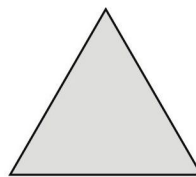
(i) **Area of a figure**

The region enclosed by the bounding lines of a closed figure is known as area of the figure.



(ii) **Triangular Region**

A triangular region is the union of a triangle and its interior i-e three line segments forming the triangle and its interior



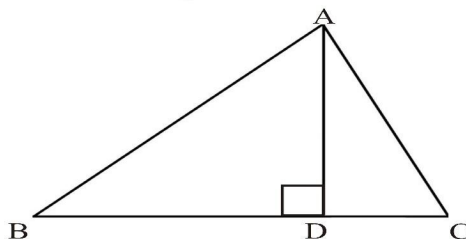
(iii) **Rectangular Region**

A rectangular region is the union of a rectangle and its interior. A rectangular region can be divided into two or more than two triangular regions in many ways.



(iv) **Altitude or Height**

If one side of a triangle is taken as its base, the perpendicular distance from one vertex opposite side is called altitude of triangle. \overline{AD} is its altitude.



Last Updated: September 2020

Report any mistake at freeilm786@gmail.com

