



- 3. A shopkeeper makes a profit of 18% if he sells an article for \$687. Calculate the cost price of the article and his percentage profit for a cash sale.**

**4. A bank exchanges American currency for British currency at the rate of 1.70 dollars (\$) to the pound (£)**

**(a) Calculate, in dollars for the amount received for £200.**

**(b) Calculate, in pounds, the amount paid for \$750 by a customer who also had to pay an extra 2% commission for the transaction.**

5. Draw a line PQ of length 8.5 cm. Using a ruler and a pair of compasses only, construct the perpendicular bisector of PQ.

6. The angles of a triangles are  $2p^\circ$ ,  $3p^\circ$  and  $3p^\circ$

(a) Name the kind of triangle that has these angles

(b) Find the value of p.

**7. Construct an isosceles right angled triangle, given that the two sides which enclosed the right angle is 7.5 cm each.**

**8. Without using a protractor, construct a triangle ABC such that  $AB = 4 \text{ Cm}$ ,  $\angle ABC = 65^\circ$  and  $AC = 6 \text{ cm}$ .**

9. A polygon has  $n$  sides. Three of exterior angles are  $23^\circ$ ,  $35^\circ$ ,  $62^\circ$ , while each of the remaining  $(n-3)$  exterior angles is  $30^\circ$ . Find the value of  $n$ .

10. The length of the sides of triangle ABC are such that  $AB : BC : CA = 8:2:5$ . Calculate the perimeter of triangle ABC given that the length of BC is 10 cm.

**11. Construct a Rhombus ABCD of side 6.4 cm and  $\angle ABC = 74^\circ$ . Measure and write down the length of AC and BD. (Use protractor, ruler and pencil compass)**

**12. Write 4 properties of Kite.**

**13. The area of a rectangle is  $40 \text{ cm}^2$ . If the length of the rectangle is  $8 \text{ cm}$ , find its perimeter.**

**14. The area of a parallelogram is  $72 \text{ cm}^2$ . If one of its sides is  $8 \text{ cm}$  and one of its height is  $6 \text{ cm}$ , find the other height and the perimeter.**

**15. Find the circumference and area of circle if its radius is 7 cm. Take  $\pi = 22/7$ .**

**16. The minute hand of a clock is 7 cm. What distance will the tip of the hand move in 15 minutes?**

**Take  $\pi = 3.142$**



**17. The diameter of bicycle wheel is 30 cm. how far will the bicycle travel in 200 turns of the wheel? Give your answer correct to nearest meter. (  $\pi= 3.142$  )**

**18. A man wants to tile a terrace measuring 8 m by 12 m. Each tile is a 20 cm square. How many tiles are needed ?**

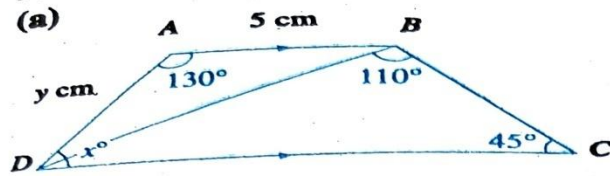
19. A carpet priced at \$ 15 per  $\text{m}^2$  is used to cover a room, 20m by 18m, leaving a margin of 1.5 m all round. Find the cost of the carpet.

20. The length of a rectangle is 4 cm greater than its width. The perimeter is 100 cm. Find the width.

Answer the following questions on separate offset papers and mark necessary angles on Diagram

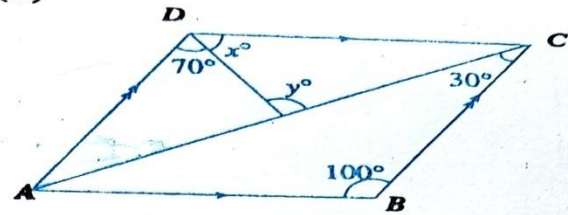
3. Find the values of  $x$  and  $y$ .

(a)



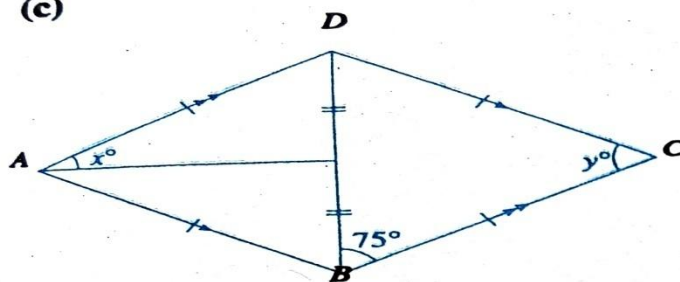
$ABCD$  is a trapezium.

(b)



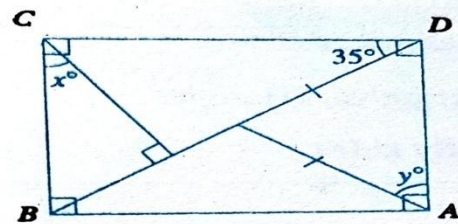
$ABCD$  is a parallelogram.

(c)



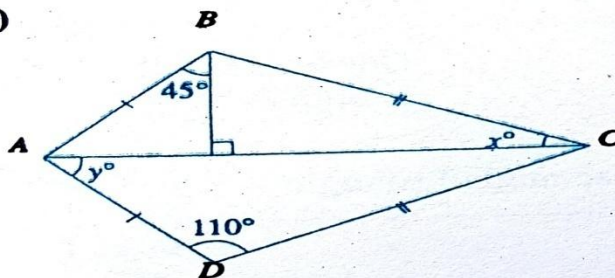
$ABCD$  is a rhombus.

(d)



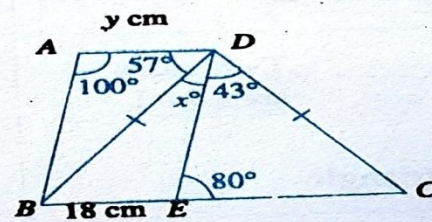
$ABCD$  is a rectangle.

(e)



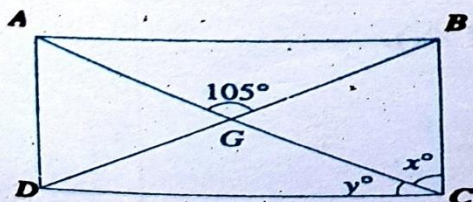
$ABCD$  is a kite.

(f)



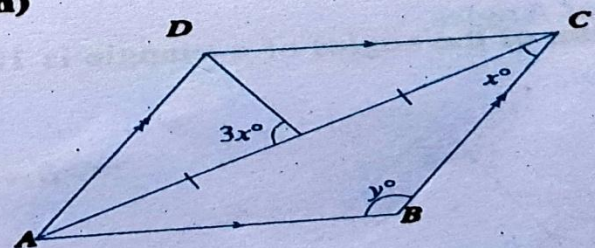
$ABCD$  is a quadrilateral.  
 $BEC$  is a straight line.

(g)



$ABCD$  is a rectangle.

(h)



$ABCD$  is a rhombus.

