

3. UNDERSTANDING QUADRILATERALS

1. Fill in the blanks.

a) The sum of the interior angles of 8 sided regular polygon is _____.

b) No. of sides, a regular polygon has if each of its interior angles is 108° _____.

c) The sum of the measures of external angles of any polygon is _____.

d) The diagonals of a convex polygon lie in the _____ of the polygon.

e) The sum of interior angles of a quadrilateral is _____.

2. Adjacent angles of a parallelogram are in the ratio 2:7. Find the measures of all the angles.

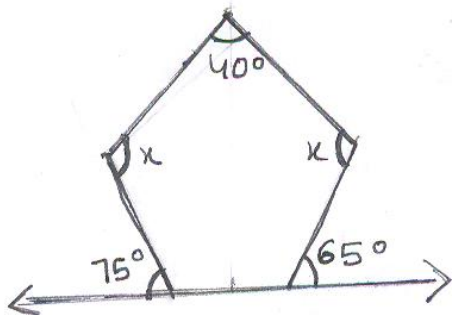
3. 3 angles of a quadrilateral are in the ratio 7:6:2. The sum of these angles is 300. The smallest angle of the quadrilateral is _____.

4. Diagonals of a rhombus are 70 cm and 24 cm. The side of the rhombus is _____ cm.

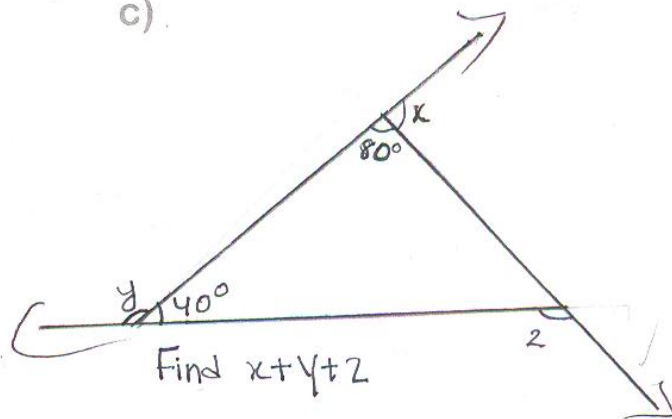
5. The sides of a parallelogram whose perimeter is 80 cm and one side exceeds its adjacent side by 4 cm. Find the sides.

6. Find the unknown angles:

a)

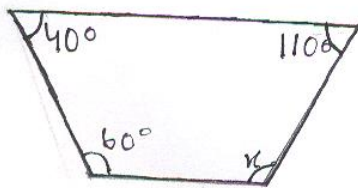


c)

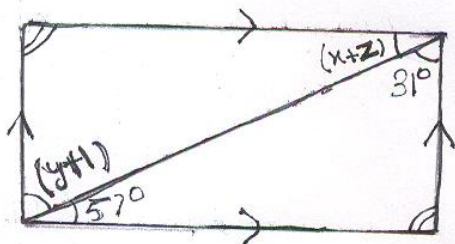
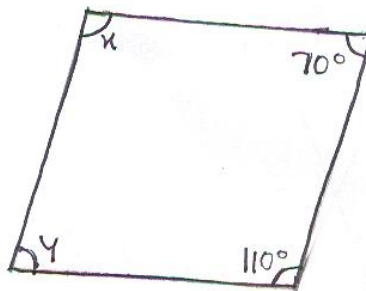


(1)

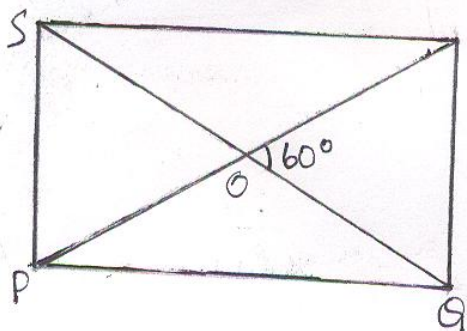
b)



d)



7. Diagonals of a rectangle PQRS intersect O
If $\angle ROQ = 60^\circ$ find $\angle OSP$



Hint: $\angle OPS = \angle OSP$

$\triangle SOP$

$\angle PSO + \angle OPS + \angle SOP = 180^\circ$

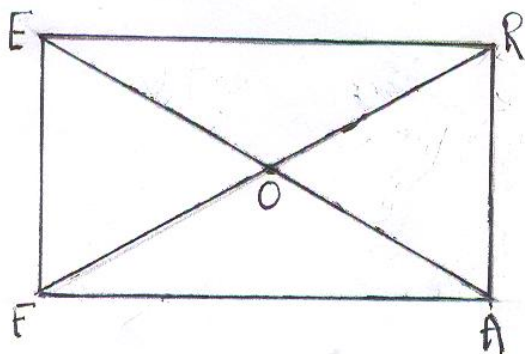
$\angle POQ = 120^\circ$

$\angle PSO = 60^\circ$

8. FARE is a parallelogram

$OA = 8\text{cm}$

And FR is 10 more than EA . Find OF



(2)