

VIII - Mathematics Assignment No - 02 - Understanding Quadrilaterals

Q1. Find the angle sum of a convex polygon if the number of sides are

- (i) 10      (ii) 7      (iii) 8

Q2. Name of a regular polygon with the number of sides are

- (i) 10      (ii) 8      (iii) 6

Q3. The sum of the exterior angles of any polygon of any no. of sides is \_\_\_\_\_ and sum of all interior angles of a polygon is \_\_\_\_\_

Q4. Find the number of sides of a regular polygon whose each exterior angle is

- (i)  $45^\circ$       (ii)  $60^\circ$

Q5. Find the number of sides of a regular polygon whose each interior angle is

- (i)  $170^\circ$       (ii)  $165^\circ$

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Q6. Name the polygon if its sides are

- (i) 20                      (ii) 18                      (iii) 16

Q7. How many sides does a regular polygon have if each of its exterior angles measures  $40^\circ$  ?

Q8. How many sides does a regular polygon have if each of its interior angles is  $168^\circ$  ?

Q9. Find the sum of the angles of a convex polygon of (i) 6 sides (ii) 16 sides

Q10. Three angles of a quadrilateral are in the ratio 4:5:3. The difference of the least and the greatest of these angles is  $42^\circ$ . Find the angles of the quadrilateral.

ANSWERS:

Q1 (i) $1440^\circ$ (ii) $900^\circ$ (iii) $1080^\circ$	(Q3) $360^\circ$ and $(n-2)180^\circ$	(Q6) (i) 20 gon (ii) 18 gon (iii) 16 gon	(Q9) (i) $720^\circ$ (ii) $2520^\circ$
Q2. (i) Decagon (ii) octagon (iii) hexagon	(Q4) (i) 8 (ii) 6 (Q5) (i) 36 (ii) 24	(Q7). 9 (Q8) 30	(Q10) $84^\circ, 105^\circ, 63^\circ$ and $108^\circ$