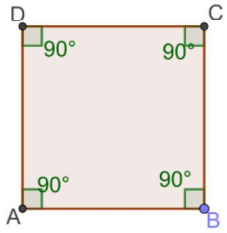
1. The width (or) size of the class interval 20-30 is 10

2. Draw the diagram of regular quadrilateral

Sol: Square

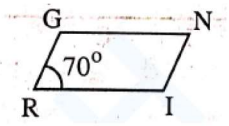


3. The square of an even number is always an even number. (True/False)?

Sol: True

4. In a parallelogram RING, if $\angle R = 70°$ then find the measure of adjacent angle to $\angle R$ [B]

A) 70°B)110° C) 180° D) 90°



5. Write a Pythagorean triplet whose smallest member is 8.

Sol: We know that $2m, m^2 - 1$ and $m^2 + 1$ form a Pythagorean triplet

Let $2m = 8 \Rightarrow m = 4$

$m^2 - 1 = 4^2 - 1 = 16 - 1 = 15$

$m^2 + 1 = 4^2 + 1 = 16 + 1 = 17$

Required Pythagorean triplet is 8,15, 17.

6. Explain how a square is:

i) **a rhombus**

Sol: A square has four equal sides. So, square is a rhombus.

ii) **a quadrilateral**

Sol: A square has four sides. So, square is a quadrilateral

7. When a die is thrown, list the outcomes of an event of getting

(i) **(a) a prime number**

Sol: 2,3,5

(b) not a prime number.

Sol: 1,4,6

(ii) (a) a number greater than 5

Sol: 6

(b) a number not greater than 5.

Sol: 1,2,3,4,5

8. a) Find the square root of:

(i) 729

Sol:

3	729
3	243
3	81
3	27
3	9
3	3
	1

$729 = \underline{3\times3}\times\underline{3\times3}\times\underline{3\times3}$

$\sqrt{729} = 3 \times 3 \times 3$

$\sqrt{729} = 27$

(ii) 1296

Sol:

2	1296
2	648
2	324
2	162
3	81
3	27
3	9
3	3
	1

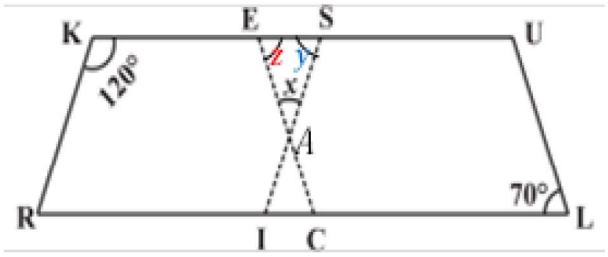
$1296 = \underline{2\times2}\times\underline{2\times2}\times\underline{3\times3}\times\underline{3\times3}$

$\sqrt{1296} = 2 \times 2 \times 3 \times 3$

$\sqrt{1296} = 36$

b) In the above figure both RISK and CLUE are parallelograms. Find the value of x.

Sol: Let $\angle ISK = y$, $\angle CEU = z$



In parallelogram RISK

$y + 120^0 = 180^0$ (Adjacent angles in a parallelogram are supplementary)

$y = 180^0 - 120^0 = 60^0$

$z = 70^0$ (In a parallelogram opposite angles are equal)

$x + y + z = 180^0$ (Angle sum property of a triangle)

$x + 60^0 + 70^0 = 180^0$

$x + 130^0 = 180^0$

$x = 180^0 - 130^0 = 50^0$