



Experimental exam

First question : Complete :

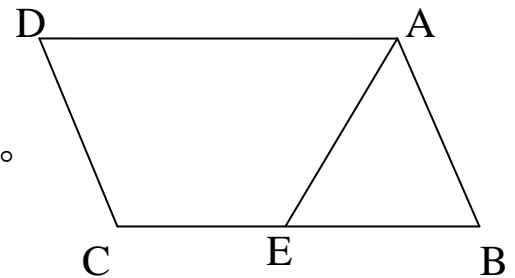
- 1) The sum of the measures of the interior angles of the triangle =°
- 2) The sum of the measures of the interior angles of the pentagon =°
- 3) The quadrilateral in which two sides are parallel is called
- 4) In a parallelogram, every two opposite angles are
- 5) The measure of the exterior angle of a triangle is equal to the sum of

Second question : Choose the correct answer :

- 1) In $\triangle XYZ$, if $m(\angle X) = 40^\circ$, $m(\angle Y) = 100^\circ$, then $m(\angle Z) = \dots\dots\dots^\circ$
[50 , 40 , 100 , 60]
- 2) If XYZ is a right angled triangle at X , $XZ = 12$ cm, $XZ = 9$ cm then $YZ = \dots\dots$ cm
[15 , 12 , 225 , 90]
- 3) The image of the point $(2,-3)$ by rotation $R(O, 90^\circ)$ is
[$(2,-3)$, $(-2,3)$, $(3,2)$, $(-3,-2)$]
- 4) A parallelogram whose two diagonals are perpendicular is called
[Rectangle , Rhombus , Square , Trapezium]
- 5) The measure of the interior angle of the regular hexagon =°
[90 , 108 , 120 , 135]

Third question :

- a) In the opposite figure:
 $E \in BC$, $m(\angle BAE) = 45^\circ$, $m(\angle AEB) = 70^\circ$, $m(\angle D) = 65^\circ$
And $m(\angle C) = 115^\circ$,
prove that $ABCD$ is a parallelogram



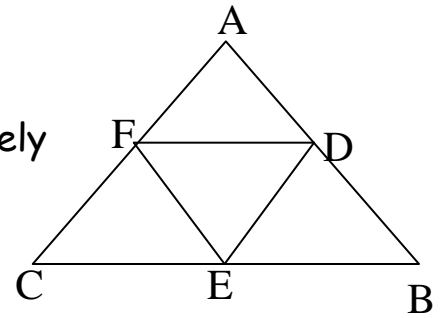
- b) If the measure of each angle of a regular polygon is 108° . Find the number of sides of this polygon.

Fourth question

A) In the opposite figure:

$AB = 5 \text{ cm}$, $BC = 8 \text{ cm}$, $AC = 7 \text{ cm}$,

D, E, and F are the midpoints of \overline{AB} , \overline{BC} and \overline{CA} respectively
, calculate the perimeter of $\triangle DEF$

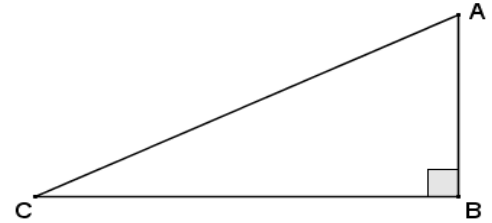


B) In the opposite figure

ABC is a right angled triangle at B

$AB = 5 \text{ cm}$, $AC = 13 \text{ cm}$

Find the length of \overline{BC}



Fifth question

Use the square lattice to draw $\triangle ABC$ in which $A(-3,1)$, $B(1,4)$ and $C(4,2)$ then draw its image by rotation $R(O,180^\circ)$

+ Good Luck +