

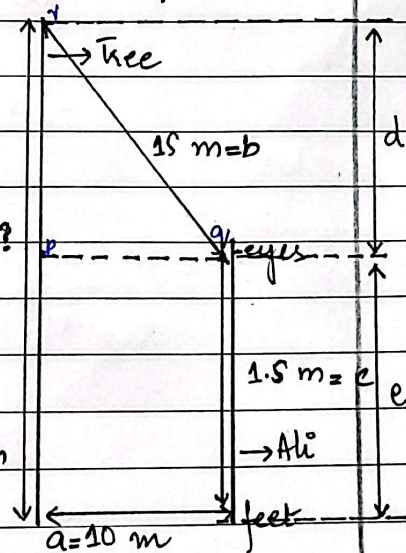
SECTION-6

Q. NO. 07.

(a) Ali is standing 10 m away from a tree. The distance of his eyes from his feet is 1.5 m. Given that the distance from his eyes to the top of the tree is 15 m, find the height of the tree.

Data:

- 1) distance between Ali and tree = $a = 10\text{ m}$ $x = ?$
- 2) distance b/w top of tree and Ali's eyes = $b = 15\text{ m}$
- 3) distance b/w Ali's eyes and his feet = $c = 1.5\text{ m}$



Required:

Height of the tree = $x = ?$

Solution:

From above figure, height of the tree = $x = d + e$ — (1)

∵ $\triangle pqr$ is a right angle triangle;

$$H^2 = P^2 + B^2 \longrightarrow (2)$$

Here,

$$P = d = ?$$

$$H = b = 15 \text{ m}$$

$$B = a = 10 \text{ m}$$

$\therefore$ equation ~~a~~ becomes:

$$b^2 = d^2 + a^2$$

or,

$$15^2 = d^2 + 10^2$$

$$d^2 = 225 - 100$$

$\therefore$

$$d^2 = 125$$

Taking $\sqrt{\quad}$ on both sides;

$$\sqrt{d^2} = \sqrt{125}$$

$$\therefore d = 11.18 \text{ m} \rightarrow (3)$$

Now, substituting the values of d and e in eq 1;

$$\therefore x = 1.8 + 11.18$$

$$x = 12.68 \text{ m}$$

Hence, the height of the tree is 12.68 m.

(b) Find out correct word from the jumbled spellings given below:

1- LNUGEF

ENGULF (Answer)

2- CKANS

SNACKS (Answer)

3- CIREFE

FIERCE (Answer)

4- EERAANMOGTP

POMEGRANATE (Answer)

5- MINIKPPD

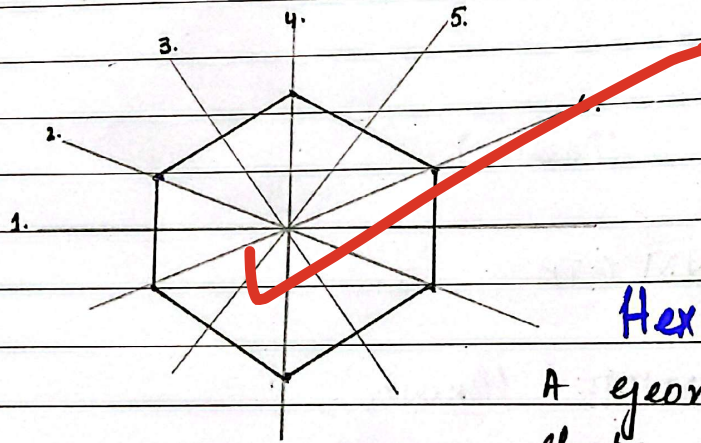
PUMPKIN (Answer)

5

(c) Draw and write the total number of lines of symmetry in a regular hexagon and octagon. How many lines of symmetry are there in a circle.

Lines Of Symmetry

"Lines that divide a shape into two identical halves."

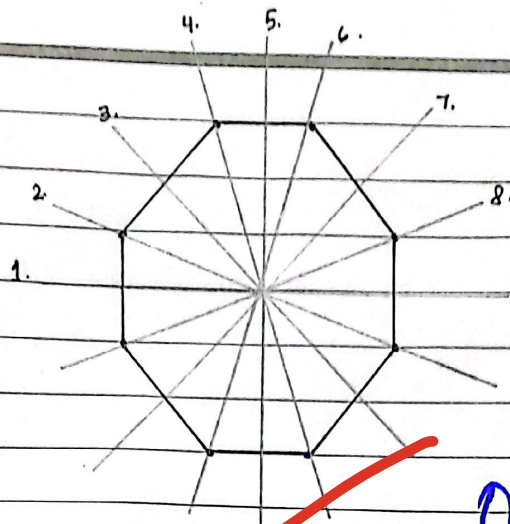


Hexagon:

A geometrical shape with 6 sides.

No. Of Lines Of Symmetry In A Hexagon Is: ~~6~~ lines.

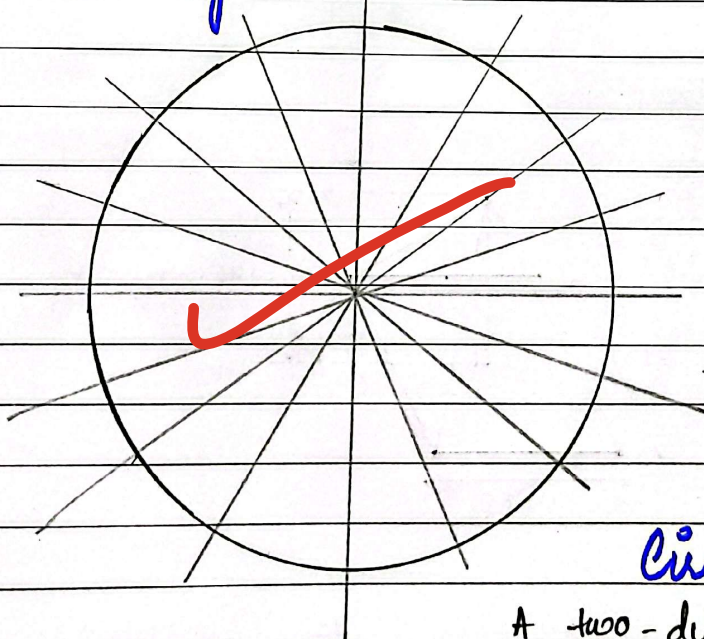
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Octagon:

A geometrical shape having 08 sides.

No. Of Lines Of Symmetry In Octagon Is: 08 lines.



Circle:

A two-dimensional shape that has same distance of all points passing through its axis.

No. Of Lines Of Symmetry of A Circle are: Infinite.

(d) The height of the Egyptian pyramid is 146.6 m and a base length is 230.6 m. Find the volume of that pyramid.

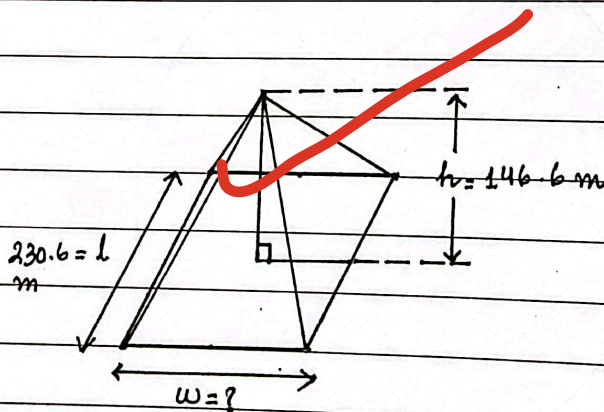
Data Given:

1. Height of the pyramid = 146.6 m.
2. Length of the base = 230.6 m

Required:

Volume of the pyramid = ?

Solution:



∴ volume of an Egyptian pyramid is given by;

$$V = \frac{1}{3} lwh \rightarrow (1)$$

∴ The base of Egyptian pyramids is square;

$$\therefore l = w = 230.6 \text{ m}$$

∴ substituting the value of w , l and h in eq. (1), we get;

$$V = \frac{230.6 \times 230.6 \times 146.6}{3}$$

$$V = \frac{7781194.376}{3}$$

∴

$$V = 2,599,013.99 \text{ m}^3$$

Hence, volume of the given pyramid is $2,599,013.99 \text{ m}^3$.

good answers!!!!

$$\begin{array}{r} 1 \\ 230.6 \\ 230.6 \end{array}$$

$$\begin{array}{r} 13836 \\ 9000x \\ 6918xx \\ 4612xxx \\ 5307636 \\ 153076.36 \end{array}$$

$$\begin{array}{r} \times 146.6 \\ 31845816 \\ 31845816x \\ 21230544xx \\ 9801636xxx \\ 7781194.376 \end{array}$$