VAISHALI EDUCATION POINT
(Quality Education Provider)

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SOME APPLICATIONS OF TRIGONOMERTY

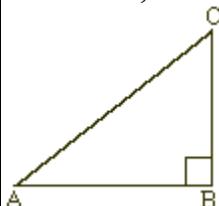| Class :- X	Subject :- Maths	Total Time :- 1 HOUR	Total Marks :- 20

General Instructions

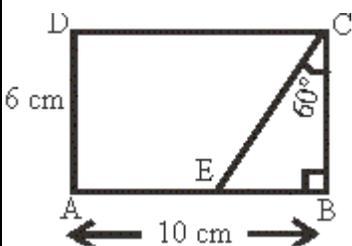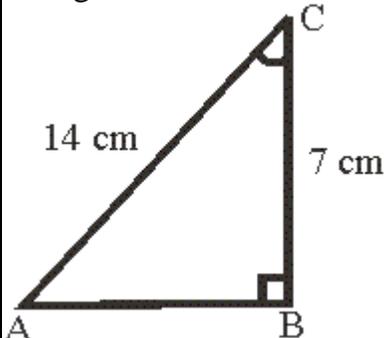| QNo.	Questions
1	If θ and $(2\theta - 45°)$ are acute angle such that $\sin\theta = \cos(2\theta - 45°)$ then $\tan\theta$ is equal to
2	In $\triangle ABC$, $\angle B = 90°$, $AB = 5$ cm and $BC = 12$ cm. Then $\sin C = ?$
3	The height of a cone is 60 cm. A small cone is cut off at the top by a plane parallel to the base and its volume is $\frac{1}{64}$ th the volume of original cone. The height from the base at which the section is made is
4	A pole 6 m high casts a shadow $2\sqrt{3}$ m long on the ground, then the Sun's elevation is **(2010)**
5	The angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of the tower is $45°$. The height of the tower (in metres) is **(2011)**
6	The shadow of a tower is equal to its height at 10–45 a.m. The sun's altitude is
7	In Fig. the value of CE is
8	In Fig. the value of is $\angle C$
9	The angle of depression from the observing position D and E of the object at A are
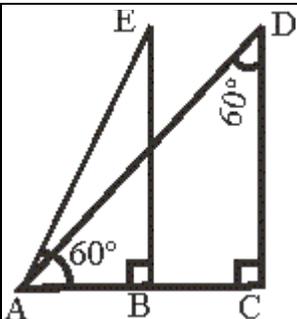
10   In fig. the length of AP is
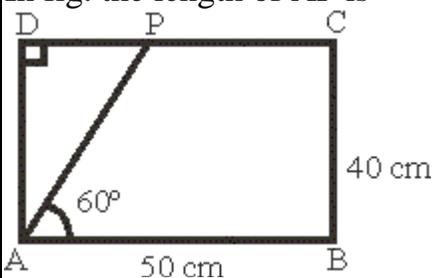
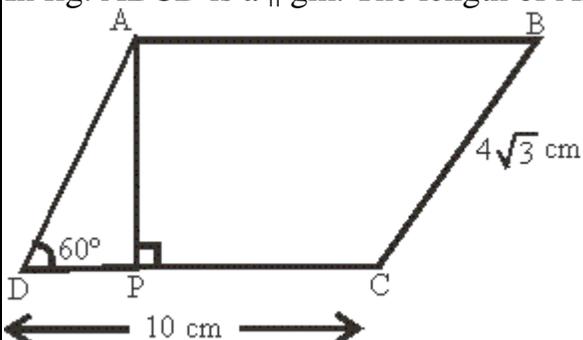11   In fig. the value of AE is
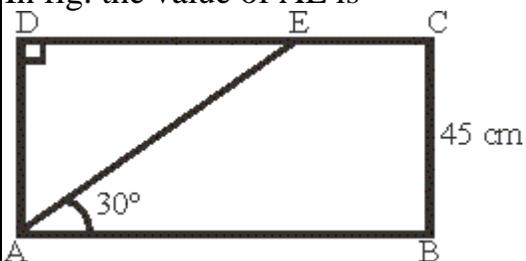
12   In fig. AD = 4 cm, BD = 3 cm and CB = 12 cm. The value of tan θ is
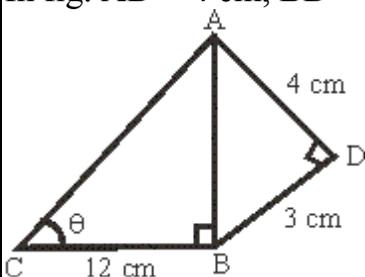
13   In fig. ABCD is a rectangle, the value of CE is
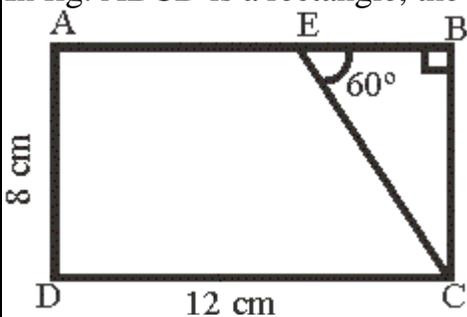
14   In fig. ABCD is a || gm. The length of AP is

15	When the length of shadow of a vertical pole is equal to $\sqrt{3}$ times of its height, the angle of elevation of the Sun's altitude is
16	The angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of the tower is 30º. The length of the tower is
17	A plane is observed to be approaching the airport. It is at a distance of 12 km from the point of observation and makes an angle of elevation of 60º. The height above the ground of the plane is
18	The upper part of a tree is broken by the wind and makes an angle of 30º with the ground. The distance from the foot of the tree to the point where the top touches the ground is 5 m. The height of the tree is
19	The angles of elevation of the top of a rock from the top and foot of 100 m high tower are respectively 30º and 45º. The height of the rock is
20	The tops of two poles of height 20 m and 14 m are connected by a wire. If the wire makes an angle of 30º with horizontal, the length of the wire is