

SSLC EXAM 2022

MATHEMATICS

Target 70+

Improve and Score > 90 %

PART – 4 : Four & Five Mark Questions

By Arun S

“Success is achieved and maintained by those who try and keep trying”

The Worksheet consists of 5 sets of questions, Practice all the questions

SET NO.	UNIT	REMARKS	Completed(Y/N)
1.	Constructions		
2.	Solving a pair of Linear Equations by Graphical Method		
3.	Applications of Trigonometry		
4.	Quadratic Equations		
5.	Theorems (5 Marks)		

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SET – 01: Constructions

1. Construct a triangle of sides 4cm, 5cm and 6cm then construct another triangle whose corresponding sides are $\frac{3}{5}$ of the sides of the first triangle.

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a. Construct a triangle of sides 4cm, 5cm and 6cm then construct another triangle whose corresponding sides are $\frac{2}{3}$ of the sides of the first triangle.

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b. Construct a triangle of sides 5cm, 6cm and 7cm then construct another triangle whose corresponding sides are $\frac{3}{5}$ of the sides of the first triangle.

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c. Construct a triangle of sides 5cm, 6cm and 7cm then construct another triangle whose corresponding sides are $\frac{7}{5}$ of the sides of the first triangle.

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SET - 02 : A Pair of Linear Equations in two variables

1. Solve graphically $x + y = 5$ and $2x - y = 4$

$$x + y = 5$$

x			
y			

$$2x - y = 4$$

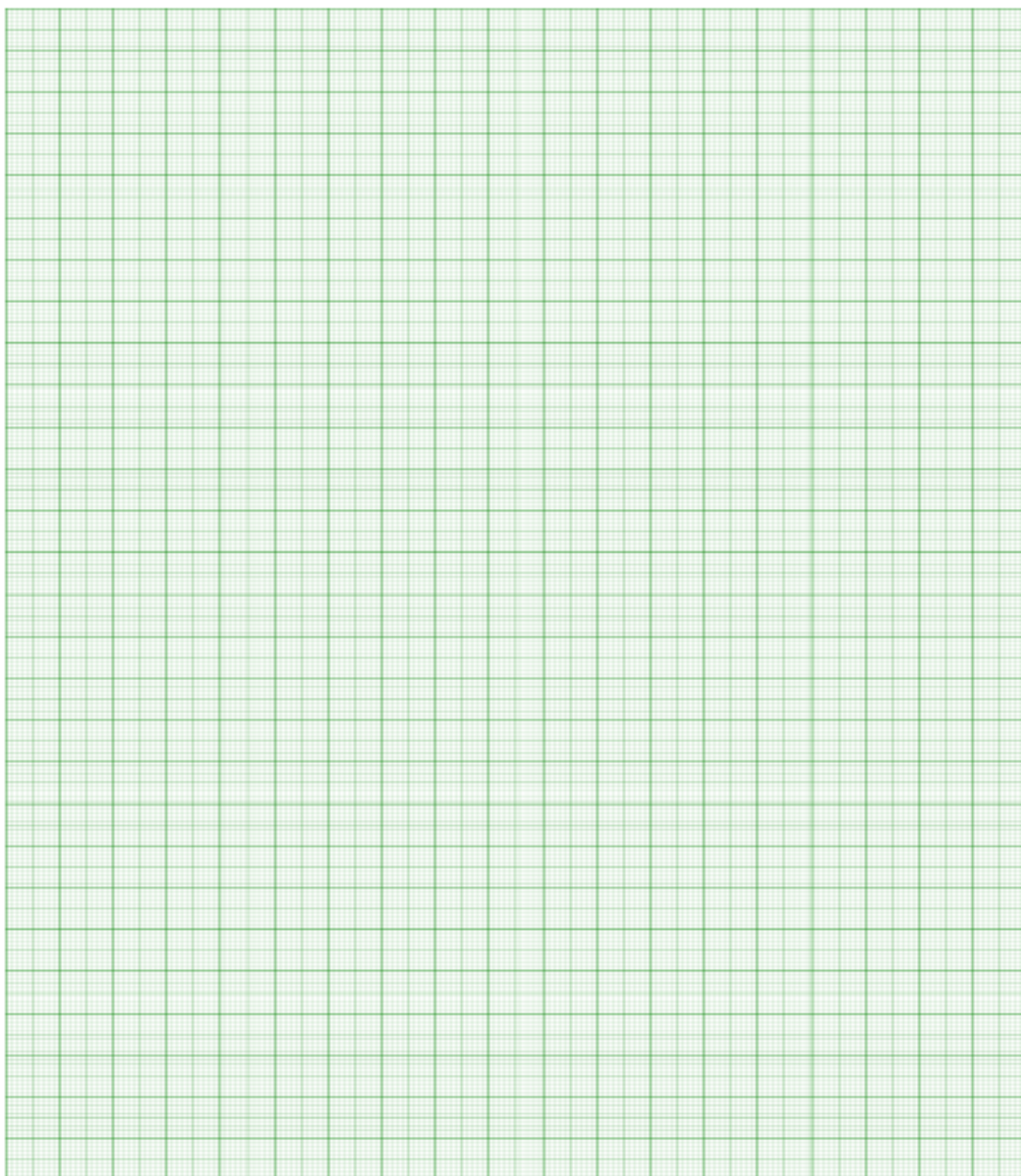
x			
y			



a. Solve graphically $x + y = 5$ and $x - y = 3$



c. Solve graphically $x + y = 5$ and $2x + y = 7$



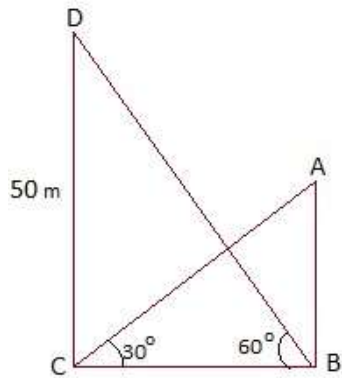
d. Solve graphically $x + y = 4$ and $2x - y = 5$



e. Solve graphically $x - y = 2$ and $2x + y = 7$

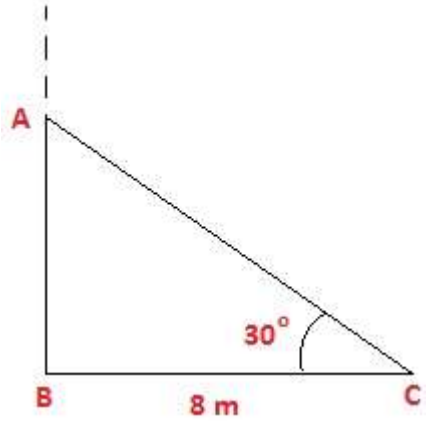


3. The angle of elevation of the top of a building from the foot of the tower is 30° and the angle of elevation of the top of the tower from the foot of the building is 60° . If the tower is 50 m high, find the height of the building.



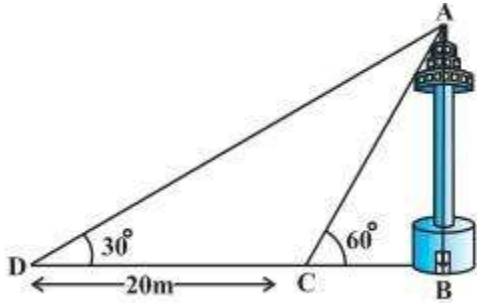
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4. A tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle 30° with it. The distance between the foot of the tree to the point where the top touches the ground is 8 m. Find the height of the tree.

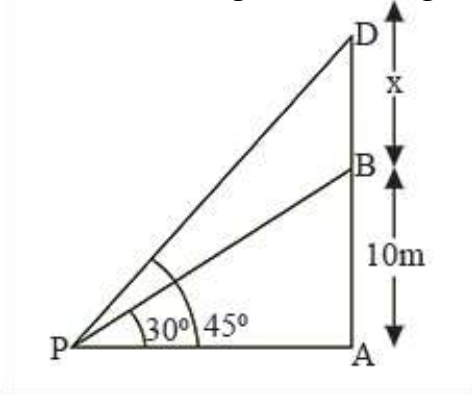


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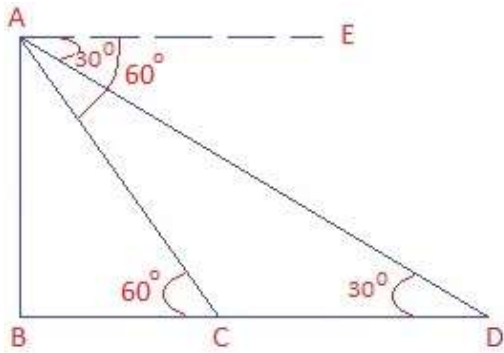
5. A TV tower stands vertically on a bank of a canal. From a point on the other bank directly opposite the tower, the angle of elevation of the top of the tower is 60° . From another point 20 m away from this point on the line joining this point to the foot of the tower, the angle of elevation of the top of the tower is 30° . Find the height of the tower and the width of the canal.



7. From a point P on the ground, the angle of elevation of a 10 m tall building is 30° . A flag is hoisted at the top of the building and the angle of elevation of the top of the flagstaff from P is 45° . Find the length of the flagstaff and the distance of the building from the point P.



8. A straight highway leads to the foot of a tower. A man standing at the top of the tower observes a car at an angle of depression of 30° , which is approaching the foot of the tower with a uniform speed. Six seconds later, the angle of depression of the car is found to be 60° . Find the time taken by the car to reach the foot of the tower from this point.



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SET – 05: Theorems (5 Marks)

1. State and Prove Thales theorem. ★ ★

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2. State and Prove Pythagoras Theorem. ★

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3. If in two triangles, corresponding angles are equal, then their corresponding sides are in the same ratio and hence two triangles are similar.

4. The ratio of the areas of two similar triangles is equal to the square of the ratio of their corresponding sides.

5. Converse of Pythagoras Theorem

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- Practice all the questions and write self-test
- Solve few more similar questions from Text book and from model papers
- Solve KSEEB Model paper and Preparatory paper
- Students you are very clever and intelligent just you need little practice and hard work to score good marks in exams.