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

			1
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)		

SET - 01: Constructions

1. Construct a triangle of sides 4cm, 5cm and 6cm then construct another triangle whose corresponding sides are 3/5 of the sides of the first triangle.



Construct a triangle of sides 4cm, 5cm and 6cm then construct another triangle whose corresponding sides are 2/3 of the sides of the first triangle.

b. Construct a triangle of sides 5cm, 6cm and 7cm then construct another triangle whose corresponding sides are 3/5 of the sides of the first triangle.

c. Construct a triangle of sides 5cm, 6cm and 7cm then construct another triangle whose corresponding sides are 7/5 of the sides of the first triangle.

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

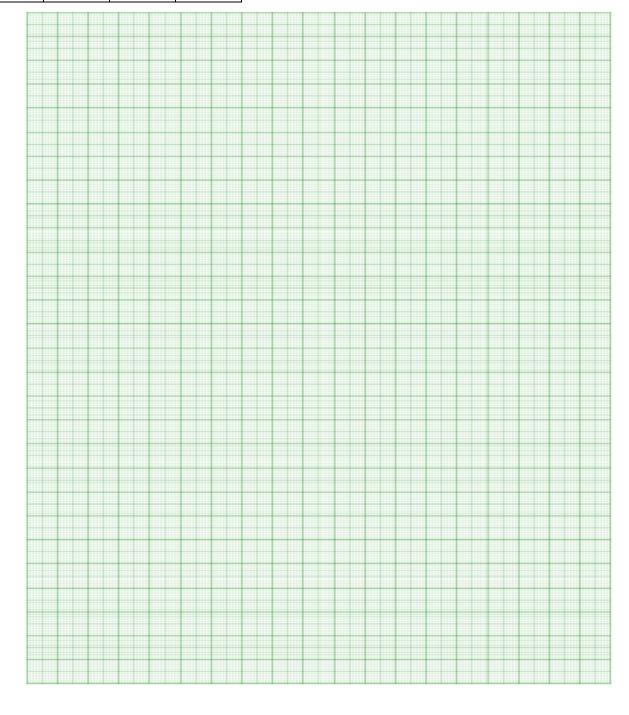
1. Solve graphically x + y = 5 and 2x - y = 4

$$x + y = 5$$

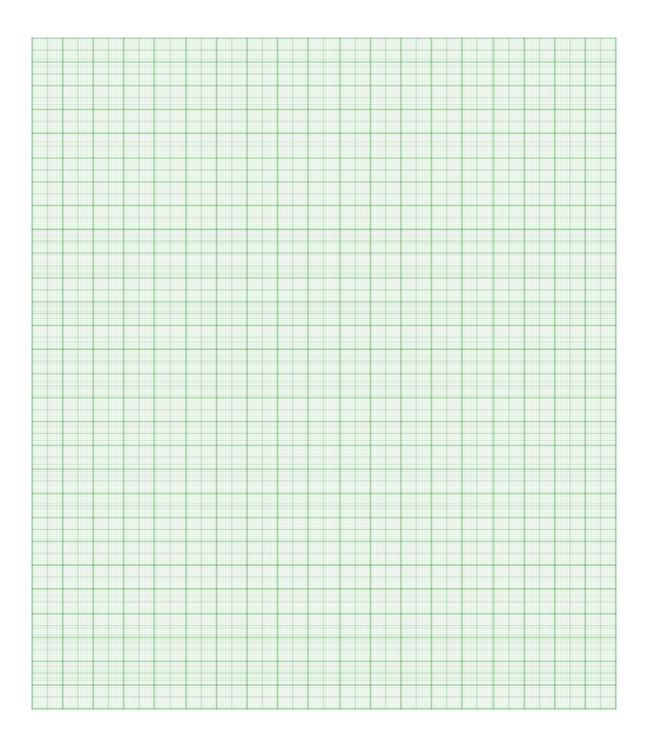
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$$2x - y = 4$$

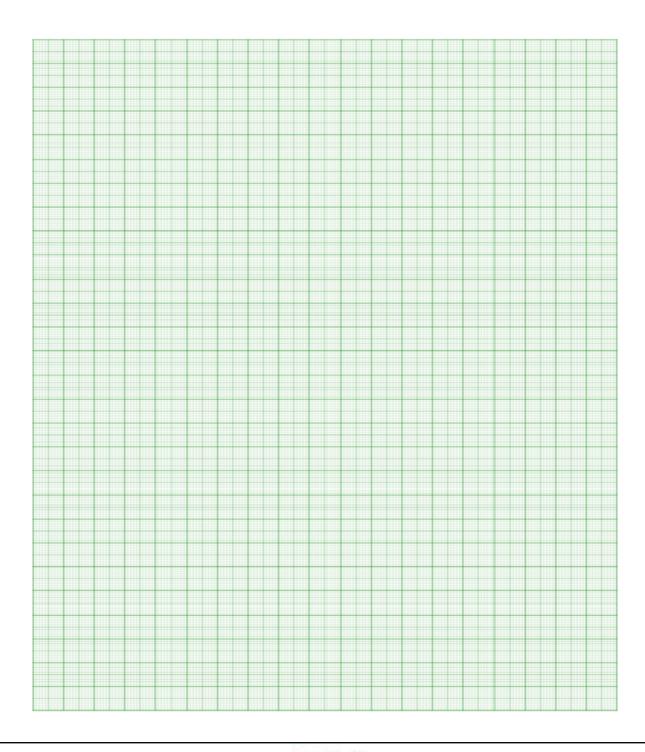
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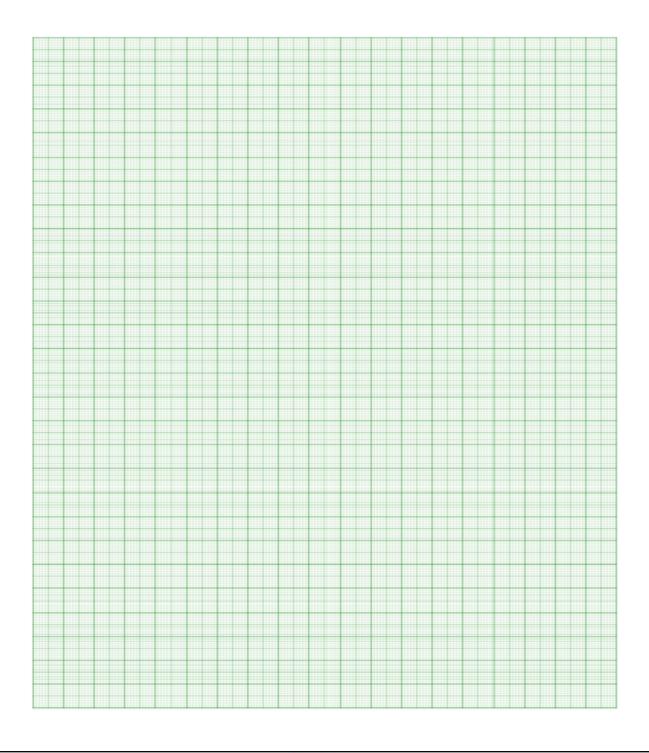
a. Solve graphically x + y = 5 and x - y = 3



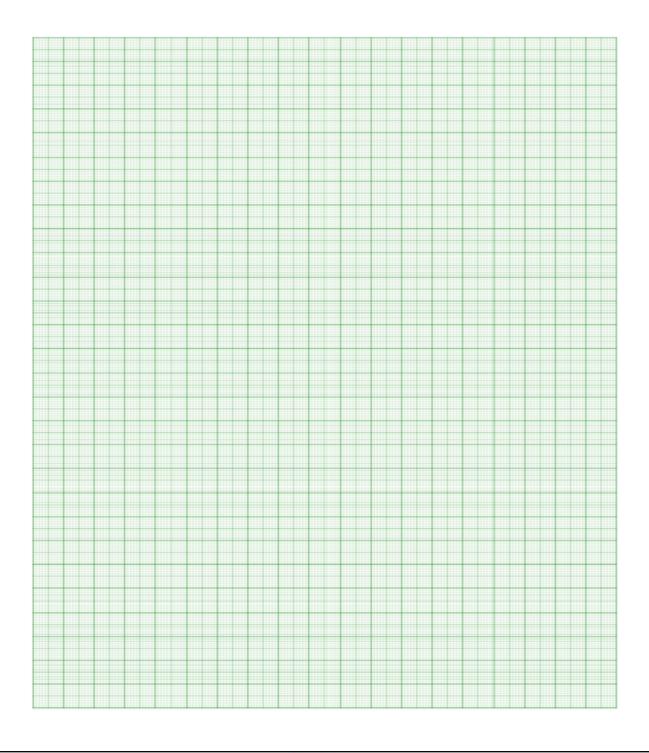
c. Solve graphically x + y = 5 and 2x + y = 7



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



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



SET - 03: Applications Of Trigonometry

1. A statue, 1.6 m tall, stands on the top of a pedestal. From a point on the ground, the angle of elevation of the top of the statue is 60° and from the same point the angle of elevation of the top of the pedestal is 45°. Find the height of the pedestal. 1.6 m В

ransmission tower fixed at the top of a 2	0 m high building are 45° and 60° respectively. Find
the height of the tower.	
В	
20 m	
C 45° D	
	48

	ouilding from the foot of the tower is 30° and the angle in the foot of the building is 60°. If the tower is 50 m
50 m A A B	

4. A tree breaks due to storm and the broken part bends so that the top of the tree touche
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.
A .
30°
B 8 m C
- OHI
La Properties de la Carte de l

	s point on the line jo of the tower is 30°		
D 30° 20m	→ C B		
		C	

rom the base of t hat the height of	he tower and in the san the tower is 6 m.	ne straight line v	vith it are comple	mentary. Prov
A x B 4m	90-X D			
	-C			
			\B	
		- 4		

6. The angles of elevation of the top of a tower from two points at a distance of 4 m and 9 m $\,$

7. From a point P on the ground, the angle of elevation of a 10 m tall building is 30°. A flag
hoisted at the top of the building and the angle of elevation of the top of the flagstaff from
is 45°. Find the length of the flagstaff and the distance of the building from the point P.
√D
/ ×
/ L↓
B ¥
10m
300 450
P A

30° 60°	- E	 	
60° C	30° D		
		,	
	RUN		

8. A straight highway leads to the foot of a tower. A man standing at the top of the tower

depression of two ships are side of the lighthouse, find	top of a 75 m high lighthouse from the sea-level, the angles of e 30° and 45°. If one ship is exactly behind the other on the same I the distance between the two ships.
A 30° 45°	— E
75 m	
45 ⁰ C	30 ⁰ D

10. Two poles of equal heights are standing opposite each other on either side of the road, which is 80 m wide. From a point between them on the road, the angles of elevation of the top of the poles are 60° and 30°, respectively. Find the height of the poles and the distances
of the point from the poles.
B

11. The shadow of a tower standing on a level ground is found to be 40 m longer when Suns altitude is 30 than when it was 60. Find the height of the tower.
<u></u>
D 30°
← 40 m → C B
Solve More Questions from Textbook to make your concept clear

$\mathbf{SET}-\mathbf{04}: \mathbf{Quadratic} \ \mathbf{Equations}$ 1. The sum of the reciprocals of Rehman's ages, (in years) 3 years ago and 5 years from now is 1/3. Find his present age.

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$\frac{1}{x+4} - \frac{1}{x-7}$	$=\frac{11}{30}$ $x \neq -4,7$			
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SET - 05: Theorems (5 Marks)

1. State and Prove Thales theorem.





2. State and Prove Pythagoras Theorem.



- 3. If in two triangles, corresponding angles are equal, then their corresponding sides are in the same ration 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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- Make a two copy of this workbook, one for practice and another to write self-test
- List all the Formulae and don't limit yourself to this workbook solve few more questions from other chapters too
- 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.