



Chapter.1  
ARITHMETIC SEQUENCES



A JOINT VENTURE OF DIET PALAKKAD AND SSK PALAKKAD



**INTER BELL**  
**INTERVENTION BASED ON EFFECTIVE LEISURE LEARNING**

1. Write an arithmetic sequence with common difference 3. find its 11<sup>th</sup> term ?
2. Find the missing term of the given arithmetic sequences
  - a) 18, 26, \_\_, \_\_
  - b) 12, \_\_, 20, \_\_
  - c) \_\_, 8, \_\_, \_\_
  - d) \_\_, 6, \_\_, 16
- 3) Consider the arithmetic sequence 12, 23, 34,.....
  - a) write algebraic form of this sequence
  - b) Find 10<sup>th</sup> term ?
- 4) Consider the arithmetic sequence 5, 9, 13,.....
  - a) write next two term
  - b) Is 2012 a term of this sequence ? Why ?
- 5)
  - a) write the algebraic expression of the sequence 9, 15, 21....
  - b) Find the position of 195 is this sequence?



- 6) Write down an arithmetic sequence with common difference 4. Can the difference of any two terms of this sequence be 2016 ?
- 7) The algebraic form of an arithmetic sequence is  $6n + 5$ .
- Write the sequence ?
  - Find 15<sup>th</sup> term?
- 8) 8<sup>th</sup> term of an arithmetic sequence is 53 and 15<sup>th</sup> term is 102.
- Find the Common difference ?
  - Find 25<sup>th</sup> term of this sequence?
- 9)
  - The sum of natural numbers from 1 to 50
  - What is the sum of First 20 natural numbers?
- 10) Find the sum of first 25 term of the arithmetic sequence 5, 8, 11,-----
- 11)
  - Find the sum of first 25 counting numbers ?
  - Find the sum of first 25 even numbers ?
  - Find the sum of first 25 odd numbers ?
- 12) Let the algebraic expression of an arithmetic sequence is  $6n + 3$ . Find the sum of first 20 terms of the sequence.
- 13) If the terms of the arithmetic sequence  $\frac{2}{9}, \frac{3}{9}, \frac{4}{9}, \frac{5}{9}, \dots$  are represented as  $x_1, x_2, x_3,$
- $x_1 + x_2 + x_3 + = \underline{\hspace{2cm}}$
  - $x_4 + x_5 + x_6 + = \underline{\hspace{2cm}}$
  - Find the sum of first 9 terms ?
  - What is the sum of first 300 terms ?



14) Observe the Pattern

3

7 11

15 19 23

27 31 35 39

.....

.....

A) Write next two lines

b) Find the first and last number in the 15<sup>th</sup> line?

15) The first term of an arithmetic sequence is 6 and the sum of the first 6 terms is 66.

a) What is the 6<sup>th</sup> term ?

b) What is the common difference ?

c) Write the first 6 terms of the sequence?



## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – CIRCLES AND TANGENTS



A JOINT VENTURE OF DIET PALAKKAD AND SSK PALAKKAD

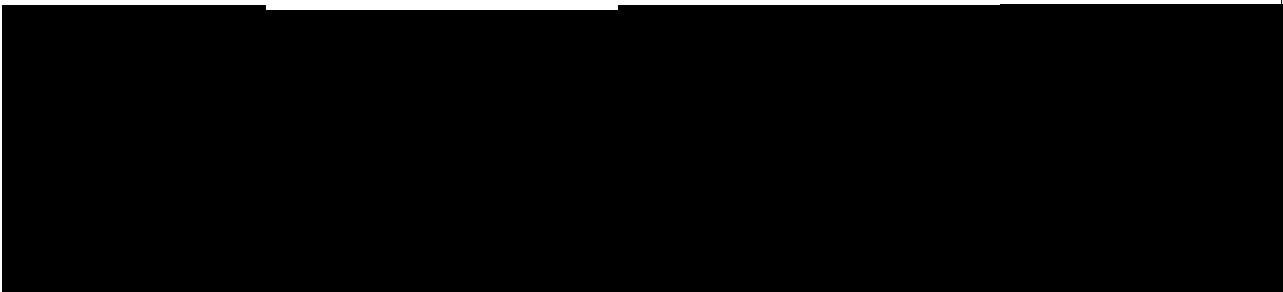


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CIRCLES AND TANGENTS

1) Find the values of  $x$ ,  $y$ ,  $z$  as required



(e)

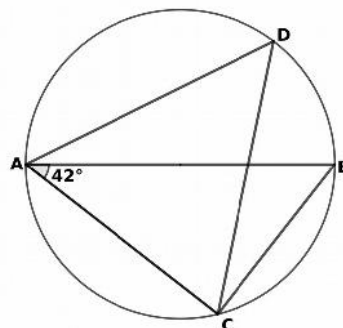
(f)

(g)

(h)

2) In figure  $AB$  is the diameter,  $\angle BAC = 42^\circ$ ,  $AD = CD$ .

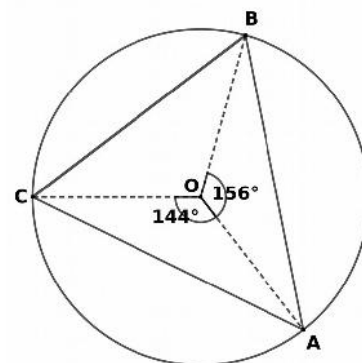
- a) Find  $\angle ACB$
- b) Find  $\angle ABC$
- c) Find  $\angle ADC$
- d) Find  $\angle DAC$
- e) Find  $\angle DCB$



3) In figure  $O$  is the centre of the circle. In triangle  $ABC$ .

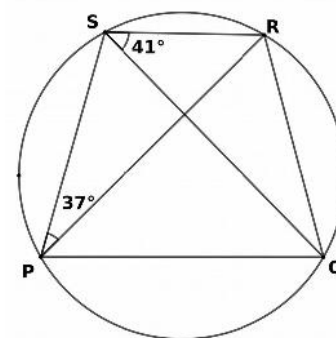
$\angle BOA = 156^\circ$ ,  $\angle COA = 144^\circ$ .

- a) Find  $\angle COB$
- b) Find  $\angle CAB$
- c) Find  $\angle CBA$
- d) Find  $\angle BAC$



4) In quadrilateral  $PQRS$ ,  $PQ$  is parallel to  $SR$ .

- a) Find  $\angle RPQ$
- b) Find  $\angle PQS$
- c) Find  $\angle PRS$
- d) Find  $\angle PRQ$
- e) Find  $\angle PSQ$



**DIET PALAKKAD - MODEL QUESTIONS - MATHEMATICS -SSLC 2021**

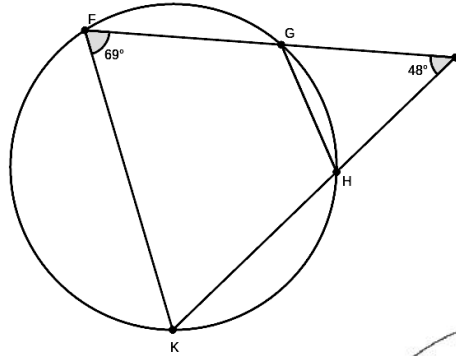
5) In figure, sides of triangle GIH, touches the circle at J,K,L.  
 $\angle JCL = 134^\circ$ ,  $\angle JCK = 104^\circ$ ,  $\angle KCL = 122^\circ$ ,

- Find  $\angle CLH$
- Find  $\angle LHJ$
- Find  $\angle G$ ,  $\angle I$



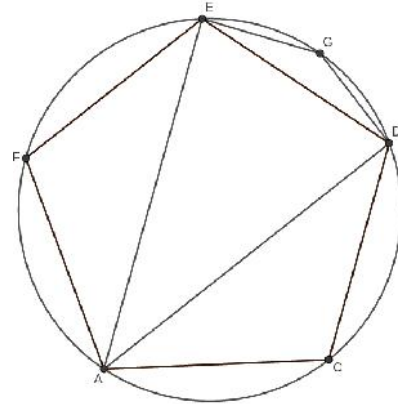
6) In figure  $\angle F = 69^\circ$ ,  $\angle J = 48^\circ$ .

- Find  $\angle GHK$
- Find  $\angle GHJ$
- Find  $\angle JGH$
- Find  $\angle FKH$
- Are Triangles JFK, JGH similar?



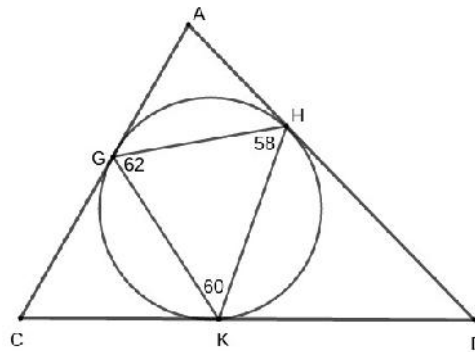
7) ACDEF is a regular pentagon.

- Find  $\angle ACD$
- Find  $\angle AED$
- Find  $\angle EDA$
- Find  $\angle EAD$
- Find  $\angle EGD$



8) In figure

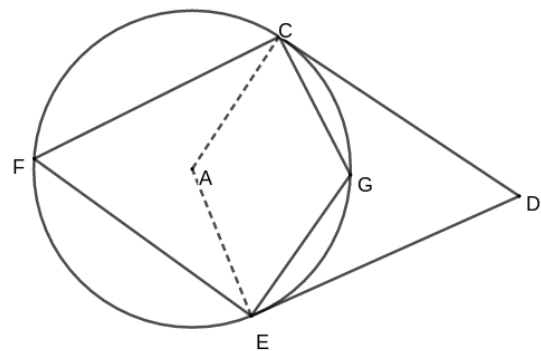
- Find  $\angle HKD$
- Find  $\angle DHK$
- Find  $\angle D$
- Find  $\angle A$
- Find  $\angle C$



9) In figure DE and DC are tangents.

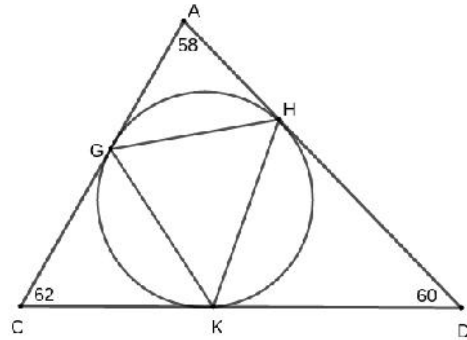
$\angle DCG = 20^\circ$ ,  $\angle DEG = 25^\circ$

- Find  $\angle CFG$
- Find  $\angle EFG$
- Find  $\angle CAE$
- Find  $\angle CGE$
- Find  $\angle CDE$

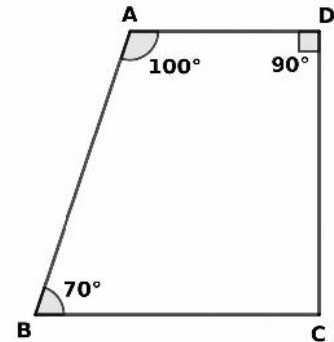


**DIET PALAKKAD - MODEL QUESTIONS - MATHEMATICS -SSLC 2021**

- 10) In figure  
 a) Find  $\angle HKD$   
 b) Find  $\angle HGK$   
 c) Find  $\angle GKH$   
 d) Find  $\angle KHG$



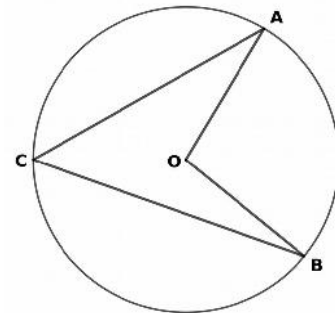
- 11) In quadrilateral ABCD,  
 a) If a circle with diameter AC is drawn, will it pass through D?  
 b) Where will be B with respect to the circle?  
 c) A circle is drawn passing through A, B, C. Will it pass through D?  
 c) Is ABCD a cyclic quadrilateral?



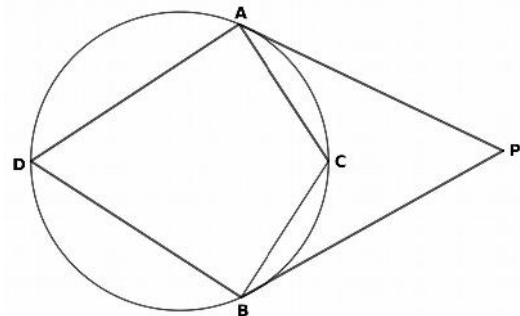
- 12) In figure, prove that  $\angle AOB = 2(\angle OAC + \angle OBC)$ .

Hint: Let  $\angle A = x^\circ$ ,  $\angle B = y^\circ$  also Draw CO

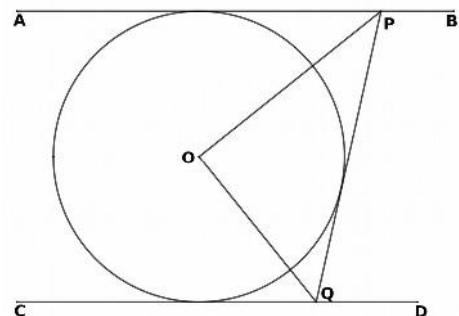
- a)  $\angle ACO = \dots\dots\dots$ ,  
 b)  $\angle BCO = \dots\dots\dots$ ,  
 c)  $\angle AOB = \dots\dots\dots$



- 13) In figure PA, PB are tangents.  
 Prove that  $\angle PAC + \angle PBC + \angle ACB = 180^\circ$   
 Hint: Let  $\angle PAC = x^\circ$ ,  $\angle PBC = y^\circ$ , Also draw DC  
 a)  $\angle ADC = \dots\dots\dots$ ,  
 b)  $\angle BDC = \dots\dots\dots$ ,  
 c)  $\angle ACB = \dots\dots\dots$



- 14) In O is the centre of circle, AB, CD, PQ are tangents.  
 Show that OPQ is a right triangle.  
 a) If  $\angle OPQ = x^\circ$ , write  $\angle OPA$   
 b) If  $\angle OQP = y^\circ$ , write  $\angle OQC$   
 c) Since AB and CD are parallel,  $\angle CQP + \angle APQ = \dots\dots\dots$   
 d)  $2x + 2y = \dots\dots\dots$

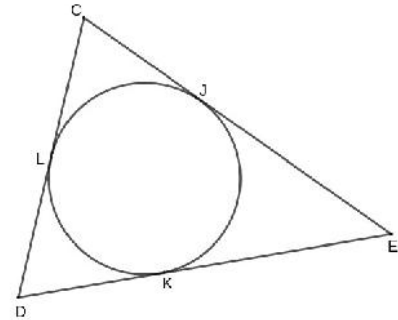


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15) In figure a circle is drawn , touching the sides of a triangle.

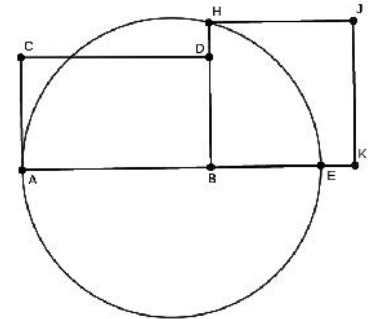
CD = 6cm , DE = 8cm , CE = 10cm.

- If  $DK = x$  cm Find length of DL
- Find length of KE.
- Find lengths of JE , LC , CJ.
- $CJ + JE = \dots\dots\dots$
- Write the lengths of the 6 parts of tangents.



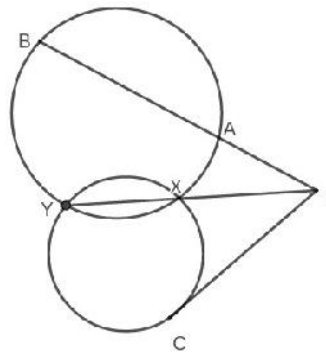
16) In figure, AE is the diameter. BH is perpendicular to AE. If the area of the square BKJH is  $18\text{cm}^2$  and  $BD = 3\text{cm}$ ,

- Find length of BH
- Find length of BE
- $AB \times BE = \dots\dots\dots$
- Find length of AB



17) In figure  $PA = 6\text{cm}$  ,  $AB = 18\text{cm}$  ,  
 $PX = 8\text{cm}$  ,

- $PA \times PB = \dots\dots\dots$  ,  $PC^2 = \dots\dots\dots$
- Find length of PY
- Find length of PC



**Constructions**

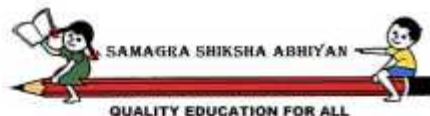
- Draw a right triangle of hypotenuse 7.5cm and one side 3cm.
- Using the concept of circles , construct an angle of measure  $30\frac{1}{2}^\circ$ .
- Draw a line segment of length  $\sqrt{21}$ , draw a square of area  $21\text{cm}^2$ .
- Draw a rectangle of sides 7cm , 3cm and draw a square of same area.
- Draw a circle of radius 3cm, mark a point 7cm away from centre . Draw tangents from there.
- Draw a circle of radius 5cm. Draw a triangle of angles  $50^\circ$  ,  $64^\circ$  and vertices on the circle.  
(Draw a triangle of cir-cum radius 5cm , and angles  $50^\circ$  ,  $64^\circ$ )
- Draw a circle of radius 4cm. Draw a triangle of angles  $60^\circ$  ,  $50^\circ$  and sides touching the circle.  
(Draw a triangle of In-radius 5cm , and angles  $60^\circ$  ,  $50^\circ$ )
- Draw triangle ABC with  $AB = 6\text{cm}$ ,  $\angle A = 54^\circ$  ,  $AC = 7\text{cm}$ . Draw its incircle and measure radius
- Draw a rhombus of sides 7cm , and one angle  $45^\circ$  and draw its incircle.
- Draw a circle and two perpendicular chords. Draw tangents at their end points.





## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 3 - PROBABILITY



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#### Questions:

1. A coin is tossed. What is the probability of getting a
  - i) head?
  - ii) tail?
2. A box contains 7 green balls and 9 blue balls. If you take a ball at random, find the probability of getting a
  - i) green ball.
  - ii) blue ball.



## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 3 - PROBABILITY

- 3. A bag contains 15 black beads and 25 white beads. If one bead is taken at random, what is the probability that of getting a**
- black bead?**
  - white bead?**
- 4. Raju is asked to tell a natural number less than 10. What is the probability that the number is**
- an odd number?**
  - an even number?**
  - a prime number?**
  - a perfect square?**
  - a multiple of 4?**
- 5. Raji is asked to tell a natural number less than 20. What is the probability that the number is**
- an odd number?**
  - an even number?**
  - a prime number?**
  - a perfect square?**
  - a multiple of 6?**



## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 3 - PROBABILITY

- 6. A dice is thrown once. What is the probability of getting**
- i) the number 4?**
  - ii) an odd number?**
  - iii) an even number?**
  - iv) a prime number?**
  - v) a perfect square?**
  - vi) a multiple of 3?**
- 7. Separate cards numbered 1 to 15 are made. One is asked to take a card from this at random. What is the probability that the number is**
- i) an odd number?**
  - ii) an even number?**
  - iii) a prime number?**
  - iv) a perfect square?**
  - v) a multiple of 5?**
- 8. Each of the letters of the word MATHEMATICS is written on separate paper slips and put in a box. If a person takes a paper slip from the box at random, find the probability of**
- i) getting letter "A".**
  - ii) getting letter "M".**
  - iii) not getting letter "A".**



## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 3 - PROBABILITY

- 9. A coin is tossed twice (Two coins are tossed together). What is the probability of getting**
- i) two heads?**
  - ii) two tails?**
  - iii) one head and a tail?**
- 10. Two dice are thrown simultaneously. What is the probability that the sum of the numbers is**
- i) odd?**
  - ii) even?**
  - iii) a prime number?**
  - iv) a perfect square?**
  - v) 7?**
- 11. Two dice are thrown simultaneously. What is the probability that both the numbers are**
- i) odd?**
  - ii) even?**
  - iii) same?**
  - iv) prime?**
  - v) different?**



## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 3 - PROBABILITY

**12. A box contains 3 white balls and 5 red balls. Another box contains 7 white balls and 9 red balls.**

- i) If one ball each is drawn at random from both the boxes, which box is better for getting a red ball?**
- ii) If all the balls of second box are transferred to first box and then drawn a ball at random, what is the probability of getting a white ball?**



## Chapter 4

# Second Degree Equations

### Focus area

- Formation of second degree equation
- Squaring problems related area and perimeter of rectangles
- Solution of second degree equation ( square completion method )

### Focus Point : Formation of second degree equation

Write the second degree equation for the following statements

1. The sum of a number and its square is 42.
2. If 10 is added with the square of a number gives 35.
3. If 9 is added with the square of a number gives 58
4. If four times a number is added with the square of that number gives 16.
5. The sum of a number and its square is 6 times the number.

### Focus Point : Squaring problems related area and perimeter of rectangles

**Hint : Half the perimeter of a rectangle = Length + Breadth**

1. The perimeter of a rectangle is 24 cm and its area is 20 sq.cm.
  - a) Half of the perimeter =.....
  - b) If x is the breadth, length =.....
  - c) What is the equation for finding the area of the rectangle?
2. The perimeter of a rectangle is 26 cm and its area is 40 sq.cm.
  - a) Half of the perimeter =.....
  - b) If x is the breadth, length =.....
  - c) What is the equation for finding the area of the rectangle?
- 3) If the perimeter of a rectangle is 18cm and its area is 18 sq.cm,  
Write the equation to denote the area of the rectangle.

- 4) The length of a rectangle is 6 cm more than its breadth. Its area is 280sq.cm.
- If  $x$  is the breadth, length =.....
  - Frame the equation of the area.
- 5) We have to construct a rectangle of perimeter 100m and area 600sq.m
- If the breadth is taken as  $x$ , what will be the length?
  - Write the area of this rectangle as an algebraic equation

**Focus Point : Solution of second degree equation ( square completion method )**

- If ' $x$ ' is a natural number
  - Write the square of the number
  - What is 6 times the number?
  - If 6 times the number is added with the square of the number gives 55, what is the number
- If ' $x$ ' is the present age of Ramu
  - What is his age after 10 years?
  - Write the product of his present age and his age after 10 years in the algebraic form
  - If this product is 144, what is his present age?
- The product of a number and two more than the number is 48.
  - Form a second degree equation ?
  - Find the numbers.
- fill in the blanks

$$x^2 + 6x = 91$$

$$x^2 + 6x + \dots = 91 + \dots$$

$$(x + 3)^2 = \dots$$

$$(x + 3) = \dots$$

$$x = \dots \text{ or } x = \dots$$

- In a right triangle one of the side is 7 cm more than its shortest side. Its hypotenuse is 1 cm more than 2 times of its shortest side Find the length of all sides of the triangle.



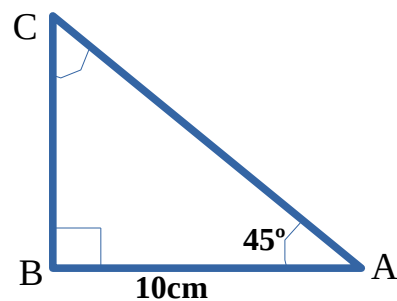
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**MATHS -- STANDARD 10**  
**REVISION QUESTIONS - CHAPTER 5 -TRIGONOMETRY**

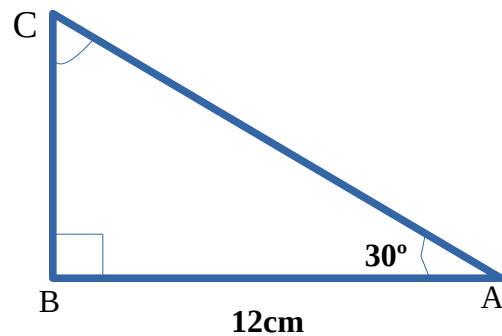
1. In  $\Delta ABC$ ,  $\angle A = 45^\circ$ ,  $\angle B = 90^\circ$ ,  $AB = 10$  cm, then

- a)  $\angle C = ?$
- b)  $BC = ?$
- c)  $AC = ?$



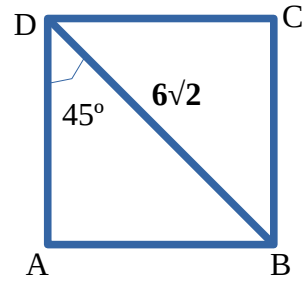
2. In  $\Delta PQR$ ,  $\angle A = 30^\circ$ ,  $\angle B = 90^\circ$ ,  $AB = 12$  cm, then

- a)  $\angle C = ?$
- b)  $BC = ?$
- c)  $AC = ?$





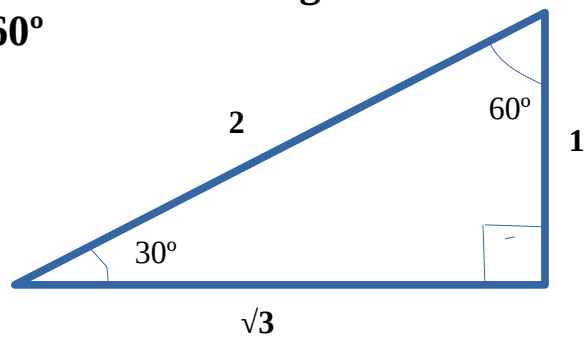
3. Find the perimeter and area of the given square ABCD.



4.

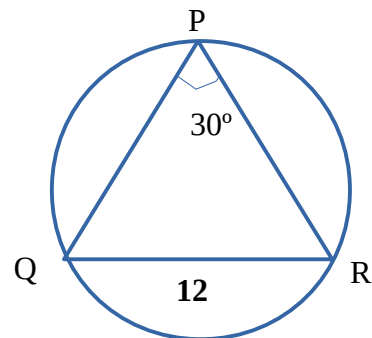
From the figure, write the values of the following.

$\sin 30^\circ$ ,  $\cos 30^\circ$ ,  $\sin 60^\circ$ ,  $\cos 60^\circ$

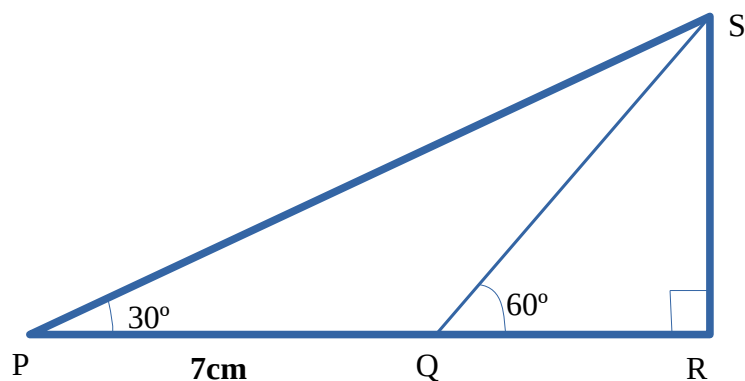


5. Circumcircle of  $\Delta PQR$  is drawn.

If  $\angle P = 30^\circ$ ,  $QR = 12\text{cm}$  then find the diameter of the circle



6.



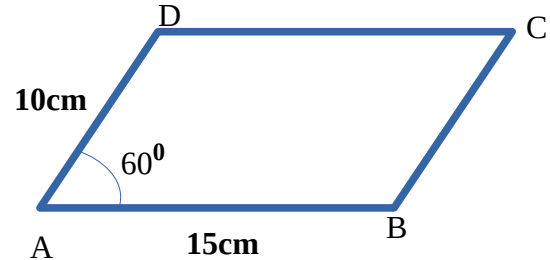
In the figure,  $PQ = 7\text{cm}$ ,  $\angle P = 30^\circ$ ,  $\angle Q = 60^\circ$ , then

a)  $\angle PQS = ?$

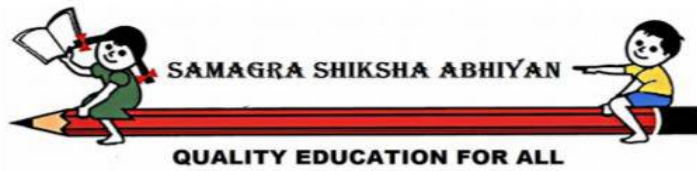
b)  $\angle PSQ = ?$

- c) length of QS = ?
- d) length of RS = ?

7. Find the perimeter and area of the parallelogram ABCD

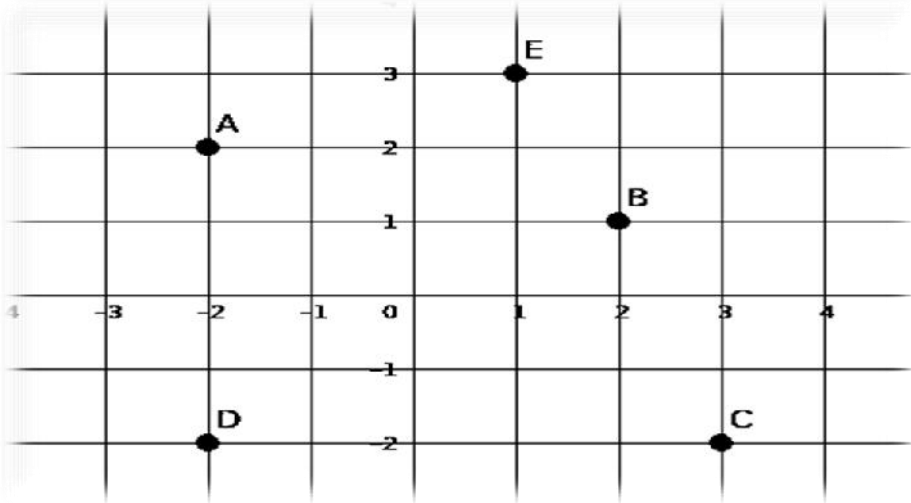


8. In a triangle, length of 2 sides are 18cm and 20cm respectively and the angle between them is  $30^\circ$ . Calculate the area of the triangle
9. A boy standing at a distance of 50m from the bottom of a tower, looks the top of the tower at an angle of elevation  $30^\circ$ .
- a) Draw a rough figure
  - b) Find the height of the tower
10. A man standing at the top of a building, sees an object which is 20m away from the building, at an angle of depression  $60^\circ$ .
- a) Draw a rough figure
  - b) Find the height of the building



## CHAPTER 6 COORDINATES

1. Find the coordinates of the points A, B, C, D, and E from the given figure



2. Draw X, Y axis and plot the following points

A(2,3) B(4,-3) C(-1,-5),D(-3,-2) E(5,5) F(2,0) G(0,2) H(0,0)

3. Classify the given points based on the table

A(3,0),B(0,0),C(0,7),E(-4,0),F(4,1),G(5,3),H(4,6), I(5,7),J(0,-5)

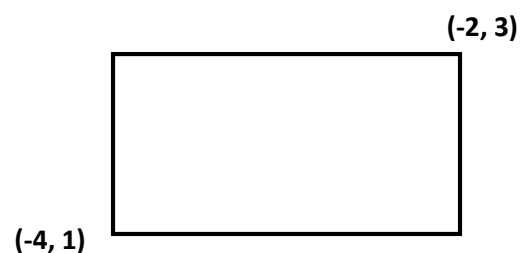
CLASSIFICATION	POINTS
Origin	
Points on the <b>X</b> - axis	
Points on the <b>Y</b> - axis	
Points which are parallel to the <b>X</b> axis	
Points which are parallel to the <b>Y</b> axis	

4. Find the opposite coordinate of the given rectangles

a)



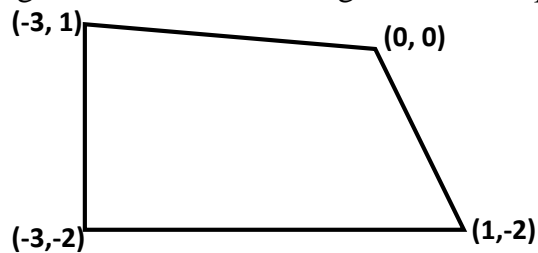
b)



c)



5. Find the distance between the points A (4, 5) and B (1, 5).
6. Find the distance between the points P (6, 4) and Q (6, 2).
7. Find the distance between the points M (4, 3) and R (1, 2)
8. The opposite vertices of a rectangle are (1, 1) and (7, 7). Find other coordinates and also find its Perimeter.
9. If origin is the centre of the circle and (4, 3) is a point on the circle. Find the radius of the circle.
10. Calculate the length of the sides and diagonals of the quadrilateral



11. Find the distance between the points P (3, 4) and Q (9, 12)
12. Plot and join the points after drawing X and Y axis. Identify the figure.  
A (1, 3), B (3, 3), C (1, 1), D (3, 1)
13. a) Check whether the circle with centre at the point (2,4) and radius 5 units pass through the Point (2, 0)  
b) Write the coordinates of the points at which this circle cuts the X axis



# MATHEMATICS - STANDARD 10

## REVISION QUESTIONS – UNIT 8 - SOLIDS



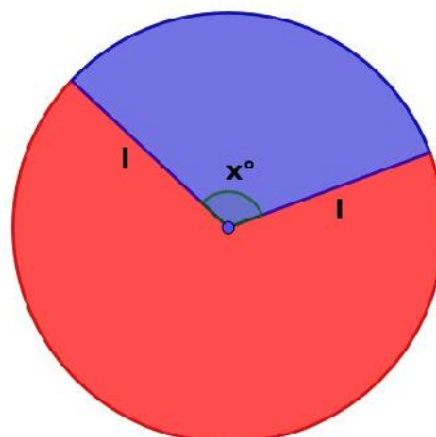
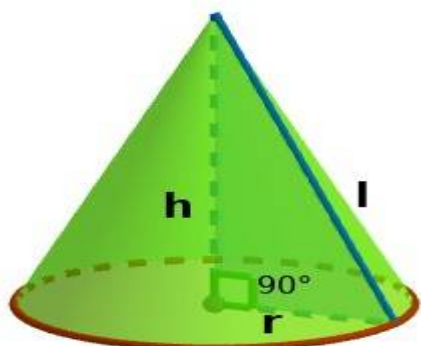
A JOINT VENTURE OF DIET PALAKKAD AND SSK PALAKKAD



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*STUDENT SUPPORT MATERIAL for X Mathematics*

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### REVISION QUESTIONS – UNIT 8 - SOLIDS

#### Questions:

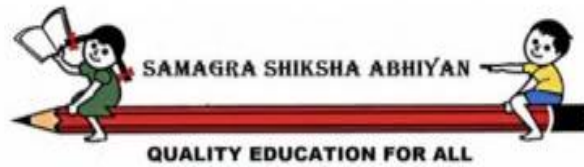
- 1) A sector is cut out from a circle of radius 10 centimetres, and rolled up into a cone. What is the slant height of the cone?  
( 5, 7.5, 10, 12 )
  
- 2) A sector of radius 12 centimetres and central angle  $120^\circ$ . A cone is made using that sector.
  - a) What is the slant height of the cone?
  - b) Calculate the base radius of the cone. ( Hint  $\frac{r}{l} = \frac{x}{360}$  )
  - c) Calculate the curved surface area.
  - d) Calculate the surface area.
  
- 3) The central angle and radius of a sector are  $288^\circ$  and 20 centimetres. A cone is made from it.
  - a) What is the slant height of the cone?
  - b) Find the base radius of the cone.
  - c) Calculate the height of the cone.
  - d) Calculate the volume of the cone.
  
- 4) The height and base area of a cylindrical wooden block are 40 centimetres and 31.4 square centimetres. A wooden cone of maximum size is curved out from the cylinder.
  - a) What is the height of the cone?
  - b) Calculate the volume of the cone.



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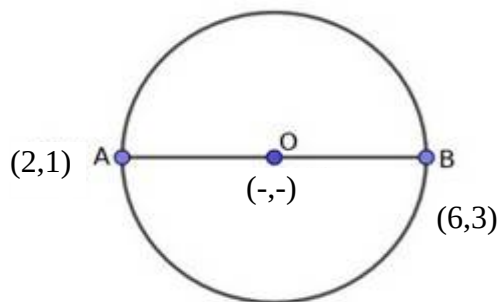
- 5) The height and slant height of a cone makes an angle  $30^\circ$  ( Here the base diameter is equal to the slant height).  
If the base radius is 10 centimetres.
- What is the slant height and height of the cone?
  - Calculate the curved surface area.
  - Calculate the volume.  $\sqrt{3} \approx 1.7$
- 6) A metal cone of slant height 17 centimetres and base radius 8 centimetres is completely melted and recast into small cones of height 3 centimetres and base radius 2 centimetres.
- What is the height of the big metal cone?
  - Calculate the volume of the big cone.
  - How many small cones can be made from that big metal cone?
- 7) Using a thin metal sheet, in the shape of a semi circle of radius 48 centimetres, a conical vessel is made.
- Find out the measurement of the slant height and base radius of vessel.
  - Calculate the curved surface area of the vessel.
  - Calculate the height of the vessel.
  - What is the ratio between the base radius, height and slant height of the cone(vessel)?
  - Calculate the volume.



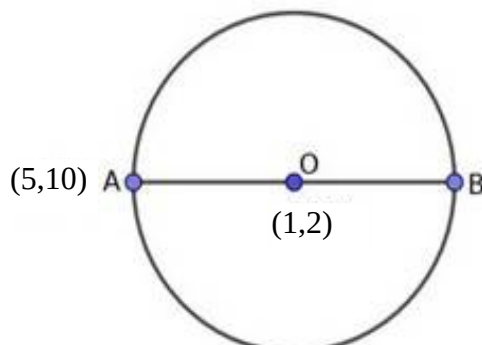
## CHAPTER 9

## GEOMETRY AND ALGEBRA

1. Find the mid -point of a line joining the points (3,4) and (5,10).
2. Find the mid -point of a line joining the points (1,1) and (7,7).
3. Find the mid -point of a line joining the points (-2,-7) and (-4,-1).
4. Find the mid -point of a line joining the points (-4,2) and (-10,4).
5. Find the mid -point of a line joining the points (-5,9) and (7,3).
6. Find the coordinate of the centre and radius of the circle

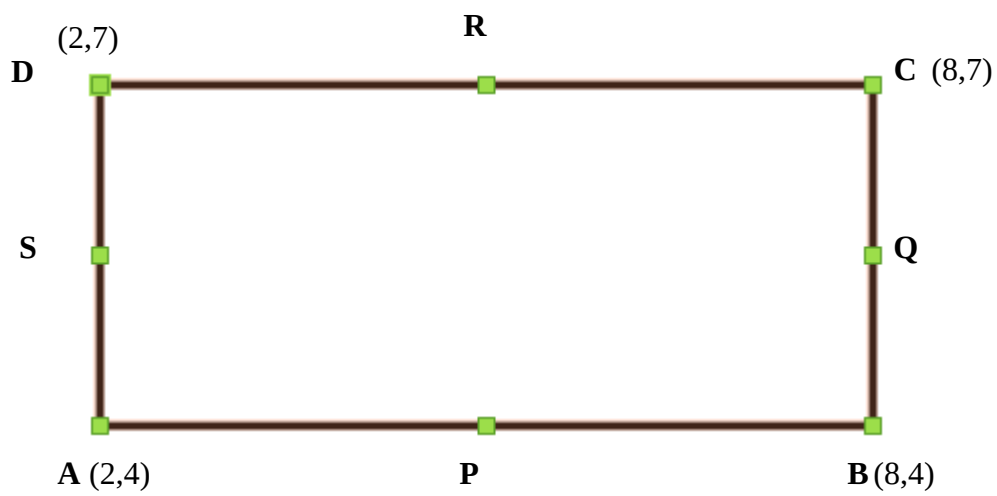


7. O (1,2) is the centre and A(5,10) is a point on the circle, find the coordinate of B.





8. Find the slope of a line joining the points (1,1) and (4,5)
9. Find the slope of a line joining the points (-1,2) and (9,6)
10. Find the slope of a line joining the points (-3,4) and (-6,-8)
11. Find the slope of a line joining the points (5,9) and (-6,-3)
12. Find the slope of a line joining the points (-6,7) and (4,-2)
13. P,Q,R,S are the mid point of the sides of a rectangle ABCD find its coordinates





## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 10 - POLYNOMIALS



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#### Questions:

1. If  $P(x) = x^2 - 3x - 2$ , What is the degree of this polynomial ?

( 0, 1, 3, 2)

2. If  $P(x) = ax^2 + bx + c$ ,  $P(0) = 4$  then  $c = \dots\dots\dots$

( 1,0,2,4)

3. If  $P(x) = ax^2 + bx + c$ ,  $P(0) = 0$  then ,which will be a factor of  $P(x)$  ?

(  $x, x + 1, x - 1, x + 2$ )



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### REVISION QUESTIONS – UNIT 10 - POLYNOMIALS

4. If  $P(x) = ax^2 + bx + c$ ,  $P(1) = 0$  then  $a + b + c = \dots\dots$

( 2,3,0,1)

5. If  $P(x) = ax^2 + bx + c$ ,  $a + b + c = 0$  then which is the factor of  $P(x)$  ?

(  $x, x+1, x-1, x +2$ )

Do you remember.....?

$$a^2 - b^2 = (a+b)(a-b)$$

so 
$$x^2 - 1 = (x + 1)(x - 1)$$

6. Write all the second degree polynomials given below as the product of two first degree polynomials

•  $x^2 - 4$

•  $x^2 - 9$

•  $x^2 - 25$

•  $x^2 - 100$

•  $x^2 - \frac{1}{4}$

•  $x^2 - \frac{1}{25}$

•  $4x^2 - 25$



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### REVISION QUESTIONS – UNIT 10 - POLYNOMIALS

7. If  $P(x) = 2x^2 - 3x$ , Write  $P(x)$  as the product of two first degree polynomials.
8. If  $P(x) = x^2 - 6x + 5$  then find  
 $P(0)$ ,  $P(1)$ ,  $P(-1)$ ,  $P(2)$
9. If  $P(x) = x^2 - 5x + 4$ , Check whether the following are the factors of  $P(x)$
- $(x - 1)$
  - $(x + 1)$
  - $(x - 3)$
10. If  $P(x) = 2x^2 - 3x + 1$  then
- a) Find  $P(1)$
  - b) Write one first degree factor of  $P(x)$
  - c) Write  $P(x)$  as the product of two first degree polynomials.
11. If  $P(x) = x^2 - 5x + 6$ , then
- a) Find  $P(2)$
  - b) Write one first degree factor of  $P(x)$
  - c) Write  $P(x)$  as the product of two first degree polynomials.



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### REVISION QUESTIONS – UNIT 10 - POLYNOMIALS

12. If  $P(x) = x^2 - 7x + 13$  then

a) Find  $P(3)$

b) Which number is to be subtracted from  $P(x)$  to make  $(x - 3)$  a factor of  $P(x)$  ?

c) Write  $P(x) - P(3)$  as the product of two first degree polynomials.

13. If  $(x - 1)$  is a factor of  $P(x) = x^2 + kx + 6$  then find the value of  $k$ .

DIET PALAKKAD



## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 11 - STATISTICS



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### Questions:

- The temperature of days of a week is provided. Find the mean and median.  
 $31^{\circ}, 28^{\circ}, 30^{\circ}, 29^{\circ}, 32^{\circ}, 27^{\circ}, 33^{\circ}$
- Wages given to 7 workers in a week is shown below. Find the mean and median.  
3500, 2100, 2500, 2300, 2300, 2200, 3300
- Find the mean and median of,  
(a) First five natural numbers.  
(b) First five prime numbers.
- The marks Vipin got in 6 exams are:  
65, 72, 59, 81, 68, 72  
Vineeth wrote only 5 exams. His marks are given below.  
71, 54, 68, 82, 75  
Whose performance is better?



## MATHEMATICS - STANDARD 10

### REVISION QUESTIONS – UNIT 11 - STATISTICS

- The mean of 10 scores is 125. If each score is increased by 5, what is the new mean?
- If the mean of 4, 5, **a**, 6, 9, **b**, 11 is 10. Find the value of  $a+b$ .
- Find the mean and median.

x	10	30	50	70	89
f	7	8	10	15	10

- If mean is 5, what is the value of **p**?

x	2	3	5	P	9
f	9	4	6	3	8

- The days in a month are classified according to the amount of rain received in different regions.

Amount of rain received	Number of days
54	3
56	5
58	6
55	3
50	2
47	4
44	5
41	2

Compute the mean of rain received in a day of that month.

- The table shows the classification according to age of 40 students from a school who participated in an athletic meet. Find the mean age of students.

Age	Number of students
12	3
13	7
14	11
15	10
16	5
17	4