GJC [HS] CHANNAGIRI. 2019 - 2020

MATHEMATICS ACTIVITY BOOK
10th STANDARD 'C' SECTION

GUIDE TEACHER:

BHUVANESHWARI. D. K.

M.Sc., B Ed.

Student Name

Roll Number

Vice principal

(Signature with seal)

10TH MATHS ACTIVITY

	CHAPTER	NAME OF THE ACTIVITY	MARKS	MARKS ALLOTMENT
SA_1 FA - 01 A - 01	Arithmatic progression	1.Completing the number puzzle by solving problems.		9x1= 9 [9 Problems] 3x1= 3 [C.puzzle] 3mark[O,Presentation]
A - 02	Triangles and circles theorems	1. Completing the four theorems in triangles. 2. Completing the two theorems in circles.		4x2 =8 [4 theorems] 2x2=4 [2 theorems] 3mark[O,Presentation]
FA - 02 A- 01	Constructions	1. Line bisects. 2. Tangents. 3. Similar triangles.		3x1=3[3constructions] 3x1=3[3constructions] 5x1=5[5constructions} 4mark[O,Presentation]
A - 02	Coordinate geometry	1. Find the distance between the i) origin and the point. ii) two points. 2. Find the area of triangle.		10 x$\frac{1}{2}$=5[10 Problems] 8 x$\frac{1}{2}$ = 4 [8 Problems] 6 x 1 = 6 [6 Problems]
SA_2 FA - 03 A - 01	Polynomials	1.Find the number of zeroes and zeroes of following graphs of p(x). 2.Verify the relationship between the zeroes and the coefficients of the following quadratic polynomial. 3. Divide p(x) by g(x) for following.		16x$\frac{1}{4}$=4 [16 Problems] 6 x$\frac{1}{2}$ = 3[6 Problems] 6 x 1 = 6 [5 Problems] 2mark[O,Presentation]
A - 02	Trigonometry	1. List all the formulas in trigonometry. 2. Write the trigonometric ratios. 3. Solve the following problems.		5 MARKS 5 MARKS 5 MARKS
FA - 04 A - 01	Statistics	1.Solve Mean, Mode & Median problems. 2. Draw less than Ogive for following. 3. Draw more than Ogive for following.		12x$\frac{1}{2}$= 6[12 Problems] 3 x 1 = 3 [3 Problems] 3 x 1 = 3 [3 Problems] 3mark[O,Presentation]
A - 02	Probability	1. Solve the problems based on dice. 2. Solve the problems based on coin. 3. Solve the problems based on complementary events.		12 x$\frac{1}{4}$=3[12 Problems] 24 x$\frac{1}{4}$=6[24 Problems] 6 x 1 = 6 [6 Problems]

Signature of class teacher Signature of vice principal

SA - 01 FA – 01

ACTIVITY – 01

: UNIT :

ARITHMETIC PROGRESSION

ACTIVITY NAME : COMPLETE THE NUMBER PUZZLE BY SOLVING GIVEN PROBLEMS

ACTIVITY – 02

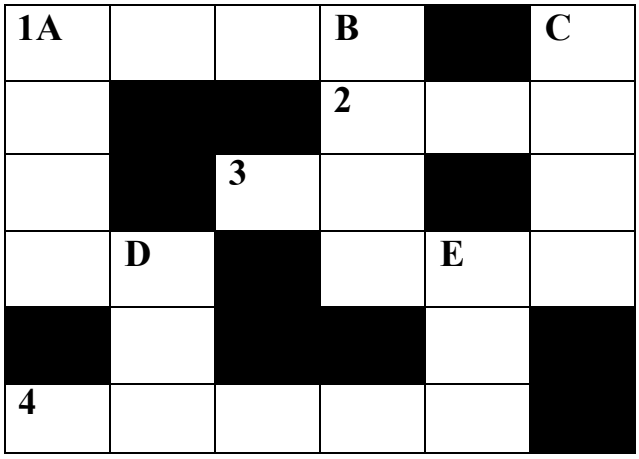
: UNIT :

TRIANGLES AND CIRCLES

ACTIVITY NAME : COMPLETE ALL THE 6 THEOREMS

10TH MATHS ACTIVITY

COMPLETE THE NUMBER PUZZLE BY SOLVING BELOW PROBLEMS



: FROM LEFT TO RIGHT :

1. The sum of the 3rd and 7th terms of an A.P. is 6 and their product is 8. Find the sum of first 16 terms of the A.P. [Exercise – 1.4 (2), Write the answers in the ascending order]

2. Find the sum of the first 15 multiples of 8. [Exercise – 1.3 (13)]

3. Find the number of terms of the A.P. : 18, $15\frac{1}{2}$, 13……....- 47. [Exercise – 1.2, 5(2)]

4. Shakila put 100 Rs into her daughter's money box when she was one year old, 150 Rs on her 2nd birthday, 200 Rs on her 3rd birthday and will continue in the same way. How much money will be collected in the money box by the her daughter is 21 year old. [Page number – 15]

: FROM TOP TO BOTTOM :

A. A sum of 1000 Rs is invested at 8% simple interest per year. Find the interest at the end of 30 years. [Example - 9]

B. The first and the last terms of an AP are 17 and 350 respectively. If the common difference is 9, then find the sum of 38 terms. [Exercise – 1.3 (6)]

C. Find the sum of the positive integers from 1 to 100. [Page number – 15]

D. Find the sum of first 24 terms of the list of numbers whose n^{th} term is $a_n = 3 + 2n$. [Page number – 15]

E. A small terrace at a football ground comprises of 15 steps each of which is 50m long and built of solid concrete. Each step has a rise of $\frac{1}{4}$ m and a tread of $\frac{1}{2}$ m. Calculate the total volume of concrete required to build the terrace. [Exercise – 1.4 (5)]

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SA - 01 FA – 02

ACTIVITY – 01

: UNIT :

CONSTRUCTIONS

ACTIVITY NAME : DRAW 1) LINE BISECT

2) TANGENTS

3) SIMILAR TRIANGLES

BY USING GIVEN DATA

ACTIVITY – 02

: UNIT :

CO-ORDINATE GEOMETRY

ACTIVITY NAME : 1) FIND THE DISTANCE BETWEEN

i) ORIGIN AND THE GIVEN POINT

ii) TWO POINTS

2) FIND THE AREA OF TRIANGLE

1. Draw a line segment of length 7.6 cm and divide it in the ratio 5 : 8. Measure the two parts.

2. Draw a line segment of length 10 cm and divide it in the ratio 2 : 3. Measure the two parts.

3. Draw a line segment of length 8 cm and divide it in the ratio 3 : 5. Measure the two parts.

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

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

03. Construct a triangle ABC with sides BC = 6 cm, AB = 5 cm and $\angle ABC = 60^0$ cm. then another triangle whose sides are $\frac{4}{3}$ of the corresponding sides of triangle ABC.

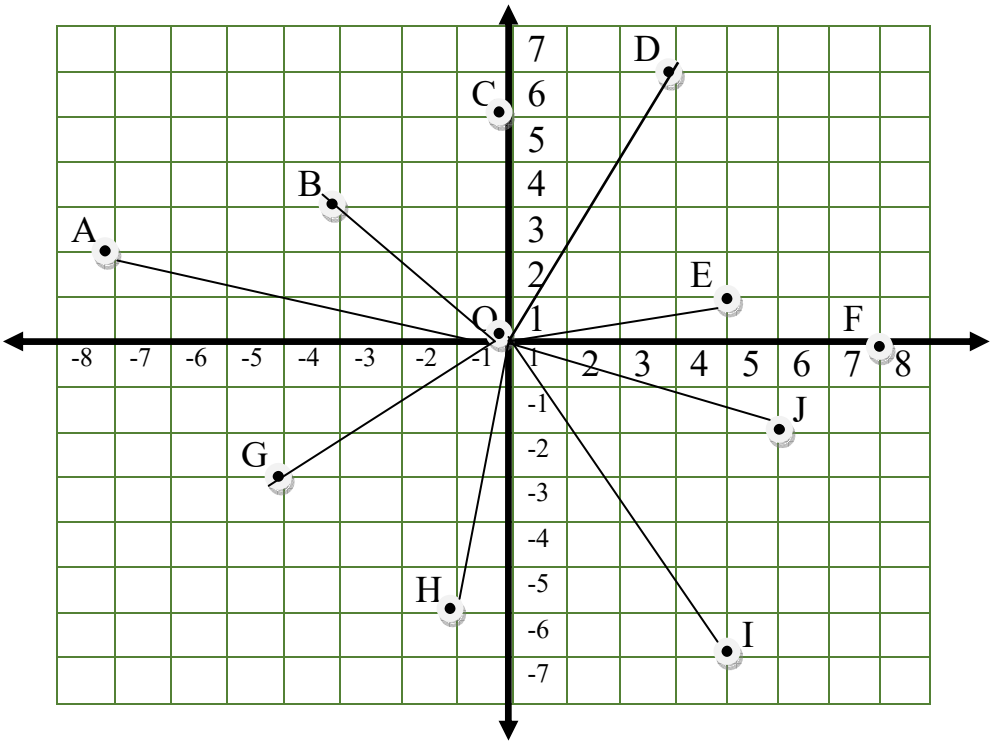
01. Draw a pair of tangents to a circle of radius 3 cm which are inclined to each other at an angle of 60^0.

02. Draw a pair of tangents to a circle of radius 3.5 cm which are inclined to each other at an angle of 65^0.

03. Draw a pair of tangents to a circle of radius 4 cm which are inclined to each other at an angle of 70^0.

04. Draw a circle of radius 6cm. From a point 10cm away from its centre, construct the pair of tangents to the circle and measure their length.

05. Draw a circle of radius 4cm. From a point 8cm away from its centre, construct the pair of tangents to the circle and measure their length.

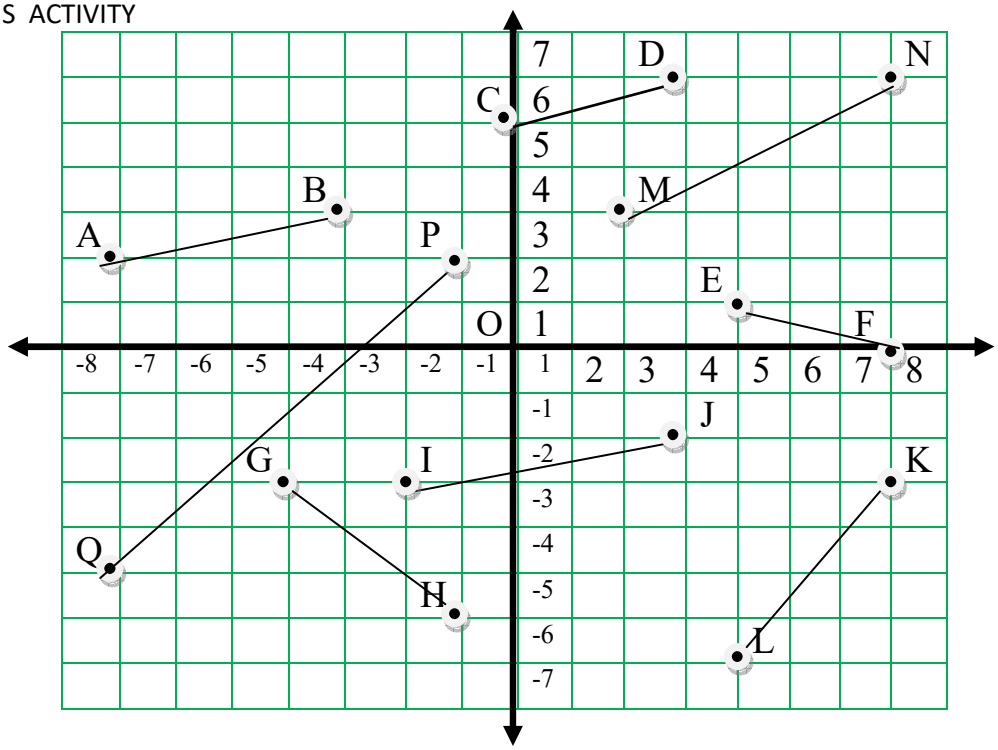


1) Identify the coordinates of the above graph and find the distance between different points to origin.

NAME OF THE COORDINATE	COORDINATES (x, y)
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
O	

POINTS	DISTANCE
OA	
OB	
OC	
O D	
OE	
OF	
OG	
OH	
OI	
OJ	

1) AB = d = $\sqrt{x^2 + y^2}$	5) IJ = d = $\sqrt{x^2 + y^2}$
2) CD = d = $\sqrt{x^2 + y^2}$	6) KL = d = $\sqrt{x^2 + y^2}$
3) EF = d = $\sqrt{x^2 + y^2}$	7) MN = d = $\sqrt{x^2 + y^2}$
4) GH = d = $\sqrt{x^2 + y^2}$	8) PQ = d = $\sqrt{x^2 + y^2}$
5) OE = d = $\sqrt{x^2 + y^2}$	10) OJ = d = $\sqrt{x^2 + y^2}$



2) Identify the coordinates of the above graph and find the distance between different the two points.

NAME OF THE COORDINATE	COORDINATES (x, y)
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
L	
M	
N	
P	
Q	

POINTS	DISTANCE
A (,), B (,)	
C (,) , D (,)	
E (,) , F (,)	
G (,), H (,)	
I (,) , J (,)	
K (,) , L (,)	
M (,) , N (,)	
P (,) , Q (,)	

1) AB = d = $\sqrt{(x2-x1)^2+(y2-y1)^2}$	5) IJ = d = $\sqrt{(x2-x1)^2+(y2-y1)^2}$
2) CD = d = $\sqrt{(x2-x1)^2+(y2-y1)^2}$	6) KL = d = $\sqrt{(x2-x1)^2+(y2-y1)^2}$
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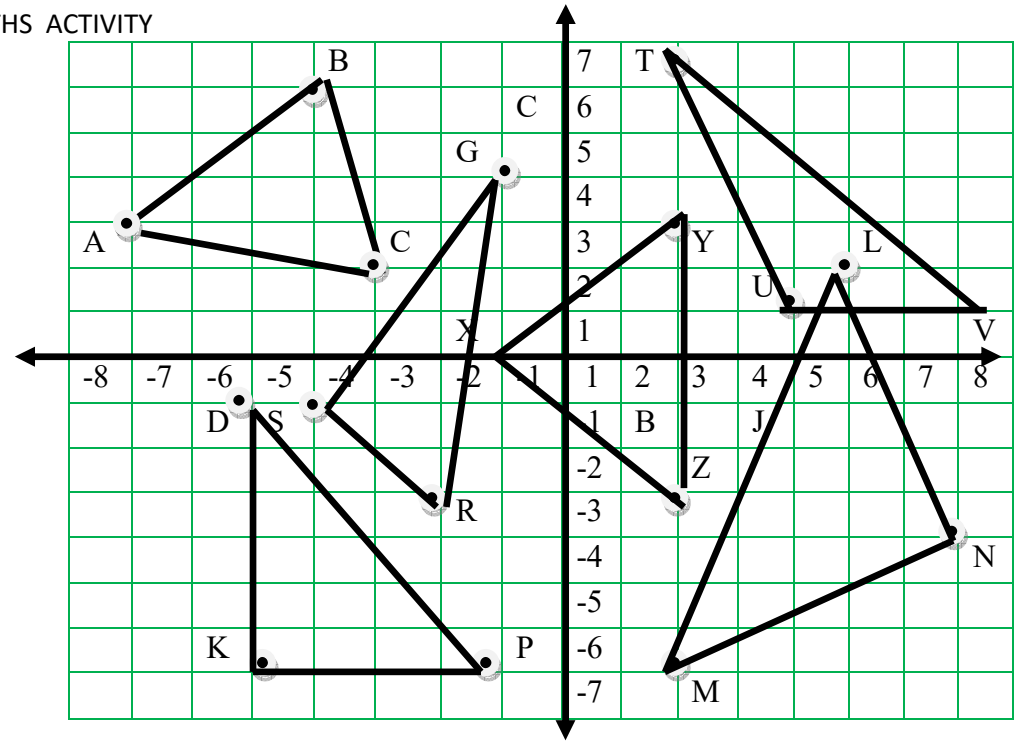


1) Identify the coordinates of the above graph and find the area of triangle.

POINTS	(x, y)
A	
B	
C	
D	
K	
P	
G	
S	
R	
X	
Y	
Z	
M	
N	
L	
T	
U	
V	

POINTS	AREA
A ( ), B ( ) , C ( )	
D( ) , K( ) , P ( )	
G ( ), S ( ), R ( )	
X ( ) , Y( ), Z ( )	
T ( ), U ( ), V ( )	
M ( ), N( ), L ( )	

1) A (-7 , 3), B (-4 , 6), C (-3 , 2)	2) D (-5 , -1), K (-5 , -7), P (-1 , -7)
$A=\frac{1}{2}[x_1(y_2-y_3)+x_2(y_3-y_1)+x_3(y_1-y_2)]$	$A=\frac{1}{2}[x_1(y_2-y_3)+x_2(y_3-y_1)+x_3(y_1-y_2)]$
3) G (-1 , 4), S (-4 , -1), R (-2 , -3)	4) X (-1 , 0), Y (2 , 3), Z (2 , -3)
$A=\frac{1}{2}[x_1(y_2-y_3)+x_2(y_3-y_1)+x_3(y_1-y_2)]$	$A=\frac{1}{2}[x_1(y_2-y_3)+x_2(y_3-y_1)+x_3(y_1-y_2)]$
5) T (2 , 7), U (4 , 1), V (8 , 1)	6) M (2 , -7), N (7 , -4), L (5 , 2)
$A=\frac{1}{2}[x_1(y_2-y_3)+x_2(y_3-y_1)+x_3(y_1-y_2)]$	$A=\frac{1}{2}[x_1(y_2-y_3)+x_2(y_3-y_1)+x_3(y_1-y_2)]$

SA - 02 FA – 03

ACTIVITY – 01

UNIT : POLYNOMIALS

ACTIVITY NAME :

1) IDENTIFY THE ZEROES OF POLYNOMIAL AND NUMBER OF ZEROES OF POLYNOMIAL BY OBSERVING THE GIVEN GRAPH.
2) VERIFY THE RELATIONSHIP BETWEEN THE ZEROES AND THE CO-EFFICIENT OF THE FOLLOWING QUADRATIC POLYNOMIALS.
3) DIVIDE p(X) BY g(X) FOR THE GIVEN PROBLEMS.

ACTIVITY – 02

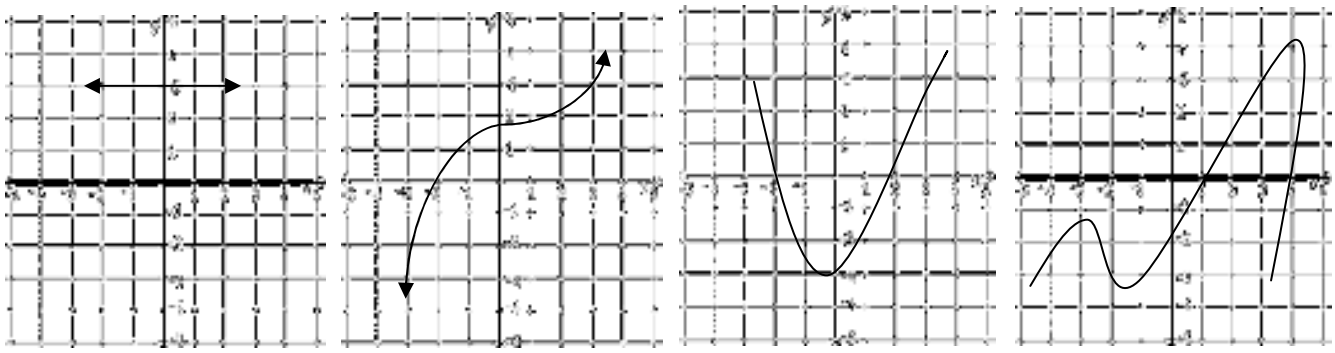
UNIT : TRIGNOMETRY

ACTIVITY NAME :

1) LIST ALL THE FORMULAS OF TRIGNOMETRY.
2) WRITE THE TRIGNOMETRIC RATIOS.
3) SOLVE THE GIVEN PROBLEMS

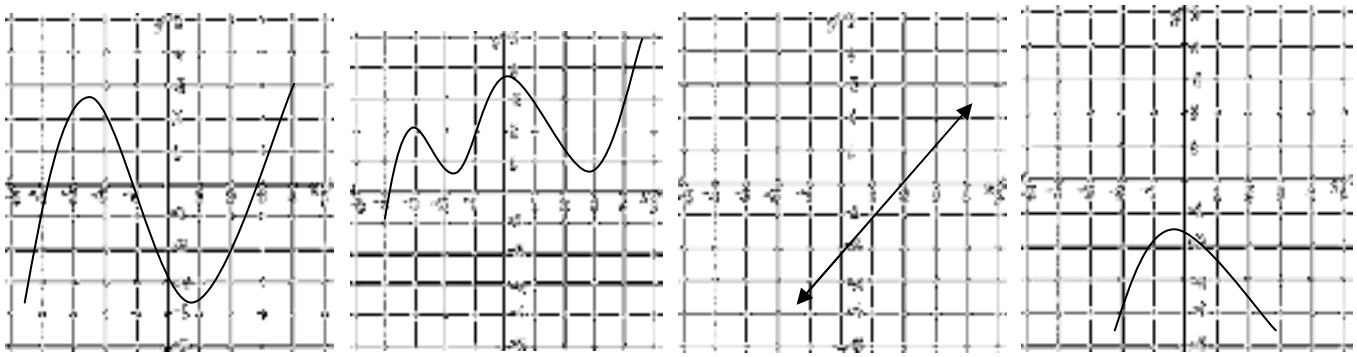
10TH MATHS ACTIVITY

1. Observe the following graph and write the number zeroes and zeroes.



1) Number of zeroes :

2) Zeroes :



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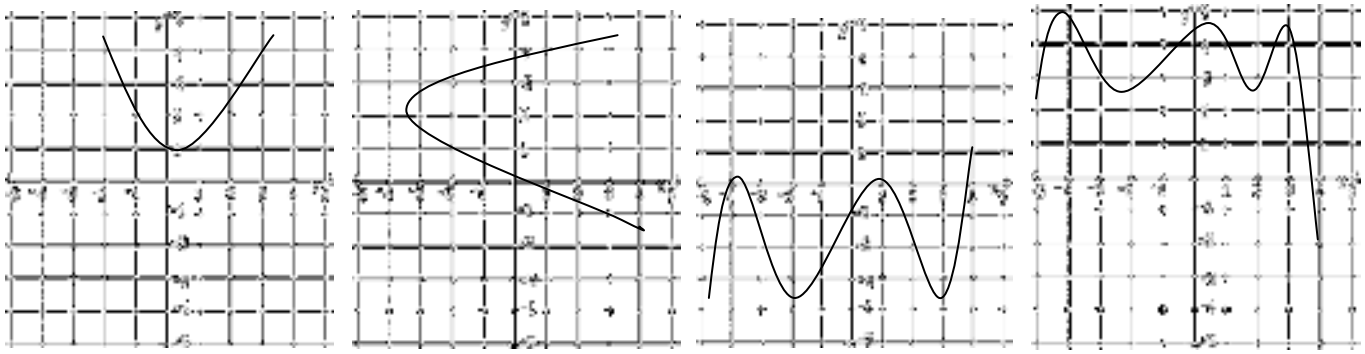
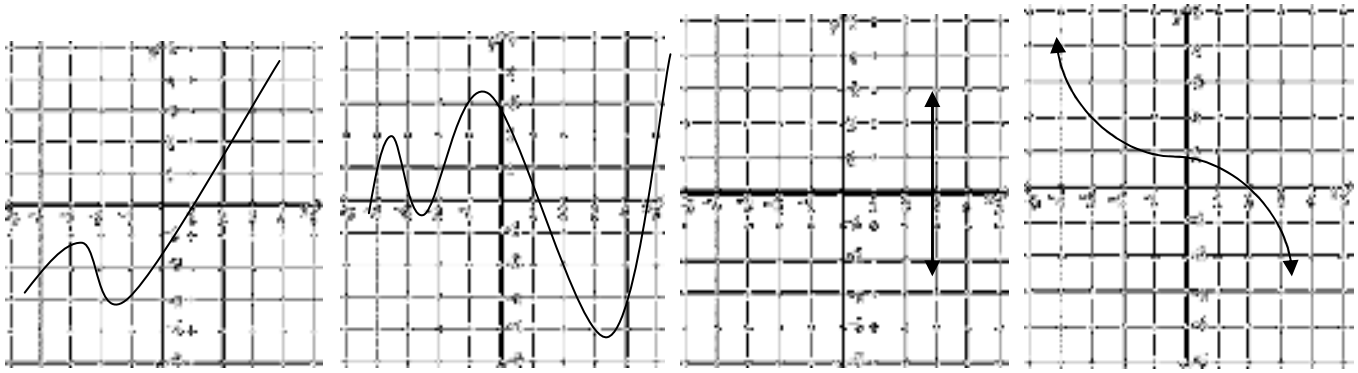
2) Zeroes :



1) Number of zeroes :

2) Zeroes :



1) Number of zeroes :

2) Zeroes :

2) Find the zeroes of the following quadratic polynomial. Verify the relationship between zeroes and the coefficients.

1) $x^2 - 2x - 8$

2) $4s^2 - 4s + 1$

3) $6x^2 - 7x - 3$

4) $3x^2 - x - 4$

5) $x^2 + 7x + 10$

6) $3x^2 + 5x - 2$

3) Find the quotient and remainder when p(x) is divide by g(x).

1	**$p(x) = x^3 - 2x^2 + 4x - 4$** **$g(x) = x - 2$**	**2**	**$p(x) = x^3 - 3x^2 + 4x - 4$** **$g(x) = x - 1$**
3	**$p(x) = x^5 - 4x^3 + x^2 + 3x + 1$** **$g(x) = x^3 - 5x + 1$**	**4**	**$p(x) = x^2 + 5x - 3$** **$g(x) = x + 3$**
5	**$p(x) = 2x^2 + 3x + 1$** **$g(x) = x + 2$**	**6**	**$p(x) = x^3 + 7x^2 + 3x - 6$** **$g(x) = x - 3$**

FORMULAS OF TRIGNOMETRY

1) $\sin\theta =$	1) $\sin\theta =$	1) $\sin(90^0 - \theta) =$
2) $\cos\theta =$	2) $\cos\theta =$	2) $\cos(90^0 - \theta) =$
3) $\tan\theta =$	3) $\tan\theta =$	3) $\tan(90^0 - \theta) =$
4) $\text{cosec}\,\theta =$	4) $\text{cosec}\,\theta =$	4) $\text{cosec}(90^0 - \theta) =$
5) $\sec\theta =$	5) $\sec\theta =$	5) $\sec(90^0 - \theta) =$
6) $\cot\theta =$	6) $\cot\theta =$	6) $\cot(90^0 - \theta) =$

Table for the values of the all trigonometric ratios

θ	0^0	30^0	45^0	60^0	90^0
sin θ					
cos θ					
tan θ					
cosec θ					
sec θ					
cot θ					

Trigonometric Identities

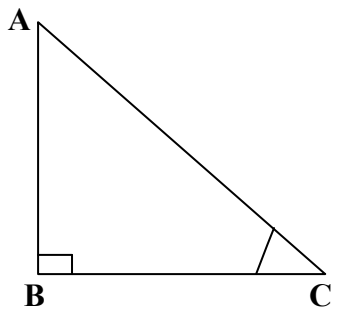
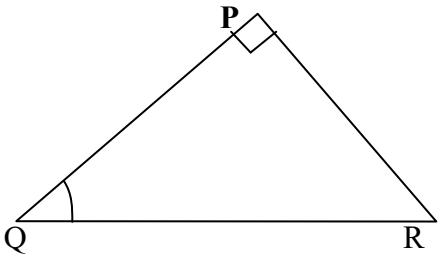
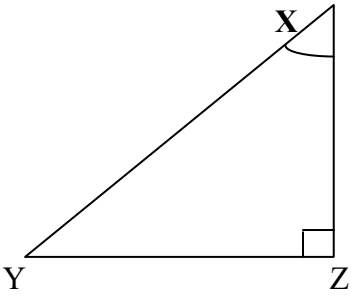
1)

2)

3)

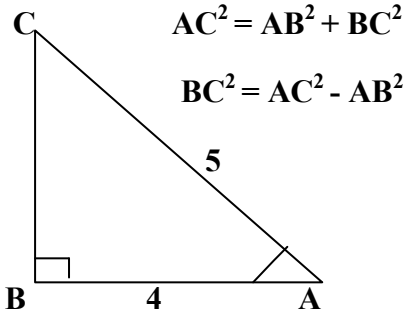
10TH MATHS ACTIVITY

01.Write the trigonometric ratios for following figures :

		
1) sin c =	1) sin Q =	1) sin Z =
2) cos c =	2) cos Q =	2) cos Z =
3) tan c =	3) tan Q =	3) tan Z =
4) cosec c =	4) cosec Q =	4) cosec Z =
5) sec c =	5) sec Q =	5) sec Z =
6) cot c =	6) cot Q =	6) cot Z =

02. If i) sin A = $\frac{3}{5}$ ii) 15 cot Q = 8 iii) sec θ = $\frac{13}{12}$.

Calculate all other trigonometric ratios.



1) sin c =

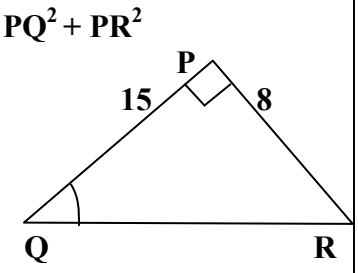
2) cos c =

3) tan c =

4) cosec c =

5) sec c =

6) cot c =



1) sin Q =

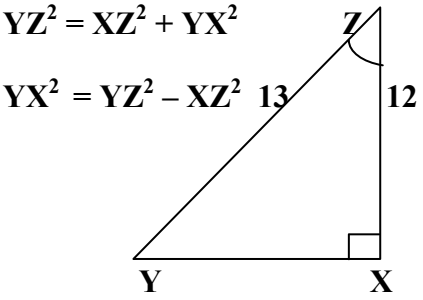
2) cos Q =

3) tan Q =

4) cosec Q =

5) sec Q =

6) cot Q



1) sin Z =

2) cos Z =

3) tan Z =

4) cosec Z =

5) sec Z =

6) cot Z =

3. EVALUATE :

1. $\frac{\tan 65^0}{\cot 25^0}$

2. $\frac{\sin 36^0}{\cos 54^0} - \frac{\sin 54^0}{\cos 36^0}$

3. $\operatorname{cosec} 31^0 - \sec 59^0$

4. $\sec 70^0 \sin 20^0 - \cos 70^0 \operatorname{cosec} 20^0$

4. FIND θ, IF [$0 \leq \theta \leq 90^0$]

1) $\sqrt{2} \cos \theta = 1$

2) $3 \tan \theta = \sqrt{3}$

3) $2 \sin \theta = \sqrt{3}$

4) $5 \sin \theta = 0$

5) FIND THE VALUE OF THE FOLLOWING :

1) $\sin 30^0 \cos 60^0 - \tan^2 45^0$

2) $4\sin^2 60^0 + 3 \tan^2 30^0 - 8\sin 45^0 \cos 45^0$

3) $\frac{\cos 45^0}{\sec 30^0 + \operatorname{cosec} 30^0}$

4) $\cos 60^0 \cos 30^0 - \sin 60^0 \sin 30^0$

SA - 02 FA – 04

ACTIVITY – 01

UNIT : STATISTICS

ACTIVITY NAME :

1) FIND OUT THE MEAN, MEDIAN AND MODE FOR THE GIVEN DATA.
2) DRAW OGIVE LESS THAN TYPE AND MORE THAN TYPE FOR THE GIVEN DATA.

ACTIVITY – 02

UNIT : PROBABILITY

ACTIVITY NAME :

1) SOLVE THE GIVEN PROBLEMS BASED ON DICE.
2) SOLVE THE GIVEN PROBLEMS BASED ON COIN.
3) SOLVE THE GIVEN PROBLEMS BASED ON COMPLEMENTARY EVENTS.

01. Find the mean for the following distribution table.

C - I	f_i	x_i	$f_i x_i$
15 - 25	6		
25 - 35	11		
35 - 45	7		
45 - 55	4		
55 - 65	4		
65 - 75	2		
75 – 85	1		
$\sum f_i =$		$\sum f_i x_i =$	

$$\text{Mean} = \overline{X} = \frac{\sum fi\, xi}{\sum fi}$$

C - I	f_i	x_i	$f_i x_i$
0 – 2	1		
2 - 4	2		
4 – 6	1		
6 - 8	5		
8 – 10	6		
10 – 12	2		
12 - 14	3		
$\sum f_i =$		$\sum f_i x_i =$	

$$\text{Mean} = \overline{X} = \frac{\sum fi\, xi}{\sum fi}$$

C - I	f_i	x_i	$f_i x_i$
11 - 13	7		
13 – 15	6		
15 – 17	9		
17 – 19	13		
19 – 21	20		
21 – 23	5		
23 - 25	4		
$\sum f_i =$		$\sum f_i x_i =$	

$$\text{Mean} = \overline{X} = \frac{\sum fi\, xi}{\sum fi}$$

C - I	f_i	x_i	$f_i x_i$
65 – 68	2		
68 – 71	4		
71 – 74	3		
74 – 77	8		
77 – 80	7		
80 – 83	4		
83 - 86	2		
$\sum f_i =$	$\sum f_i x_i =$		

$$\text{Mean} = \overline{X} = \frac{\sum fi\, xi}{\sum fi}$$

02. Find the median for the following distribution table.

C - I	f	cf
30 – 35	14	
35 – 40	16	
40 – 45	18	
45 – 50	23	
50 – 55	18	
55 – 60	08	
60 – 65	03	
n =	$\frac{n}{2}$ =	

$$\text{Median} = \ell + \left[\frac{\frac{n}{2} - cf}{f} \right] \times h$$

C - I	f	cf
0 – 20	6	
20 – 40	8	
40 – 60	10	
60 – 80	12	
80 – 100	6	
100 – 120	5	
120 – 140	3	
n =	$\frac{n}{2}$ =	

$$\text{Median} = \ell + \left[\frac{\frac{n}{2} - cf}{f} \right] \times h$$

C - I	f	cf
0 – 10	5	
10 – 20	8	
20 – 30	20	
30 – 40	15	
40 – 50	7	
50 – 60	5	
n =	$\frac{n}{2}$ =	

$$\text{Median} = \ell + \left[\frac{\frac{n}{2} - cf}{f} \right] \times h$$

C - I	f	cf
40 – 45	2	
45 – 50	3	
50 – 55	8	
55 – 60	6	
60 – 65	6	
65 – 70	3	
70 - 75	2	
n =	$\frac{n}{2}$ =	

$$\text{Median} = \ell + \left[\frac{\frac{n}{2} - cf}{f} \right] \times h$$

03. Find the mode for the following distribution table.

C - I	f	
0 – 20	10	
20 – 40	35	
40 – 60	52	f_0
60 – 80	61	f_1
80 – 100	38	f_2
100 – 120	29	

$$\text{Mode} = \ell + \left[\frac{f1 - f0}{2f1 - f0 - f2}\right] \times h$$

C - I	f	
0 – 10	7	
10 – 20	14	
20 – 30	13	
30 – 40	12	f_0
40 – 50	20	f_1
50 – 60	11	f_2
60 – 70	15	
70 - 80	8	

$$\text{Mode} = \ell + \left[\frac{f1 - f0}{2f1 - f0 - f2}\right] \times h$$

C - I	f	
10 – 25	2	
25 – 40	3	f_0
40 – 55	7	f_1
55 – 70	6	f_2
70 – 85	6	
85 - 100	6	

$$\text{Mode} = \ell + \left[\frac{f1 - f0}{2f1 - f0 - f2}\right] \times h$$

C - I	f	
5 – 15	6	
15 – 25	11	
25 – 35	21	f_0
35 – 45	23	f_1
45 – 55	14	f_2
55 - 65	5	

$$\text{Mode} = \ell + \left[\frac{f1 - f0}{2f1 - f0 - f2}\right] \times h$$

04. Find the mean, median and mode for the following distribution table.

C - I	f_i	x_i	$f_i x_i$
0 – 10	7		
10 – 20	10		
20 – 30	23		
30 – 40	51		
40 – 50	6		
50 – 60	3		
$\sum f_i =$		$\sum f_i\ x_i =$	

$$\text{Mean} = \overline{X} = \frac{\sum fi\ xi}{\sum fi}$$

C - I	f	cf
0 – 10	7	
10 – 20	10	
20 – 30	23	
30 – 40	51	
40 – 50	6	
50 – 60	3	
n =	$\frac{n}{2} =$	

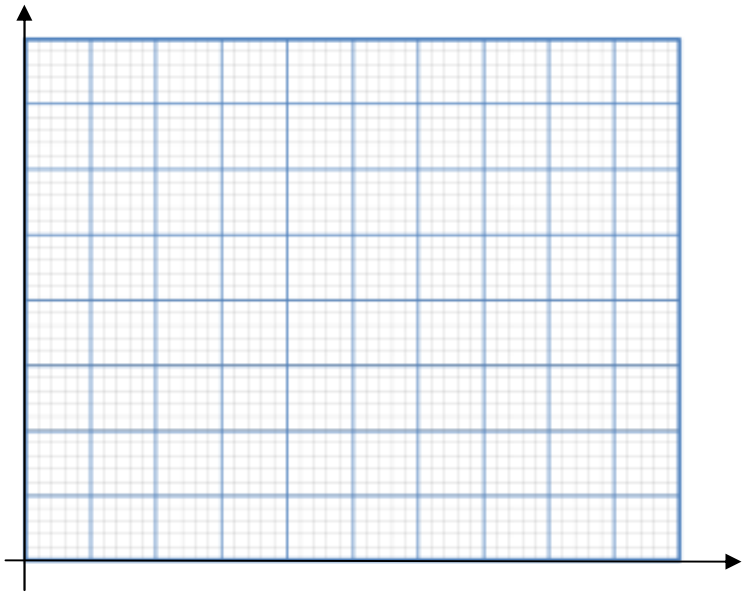
$$\text{Median} = \ell + \left[\frac{\frac{n}{2} - cf}{f} \right] \text{x h}$$

C - I	f	
0 – 10	7	
10 – 20	10	
20 – 30	23	f_0
30 – 40	51	f_1
40 – 50	6	f_2
50 – 60	3	

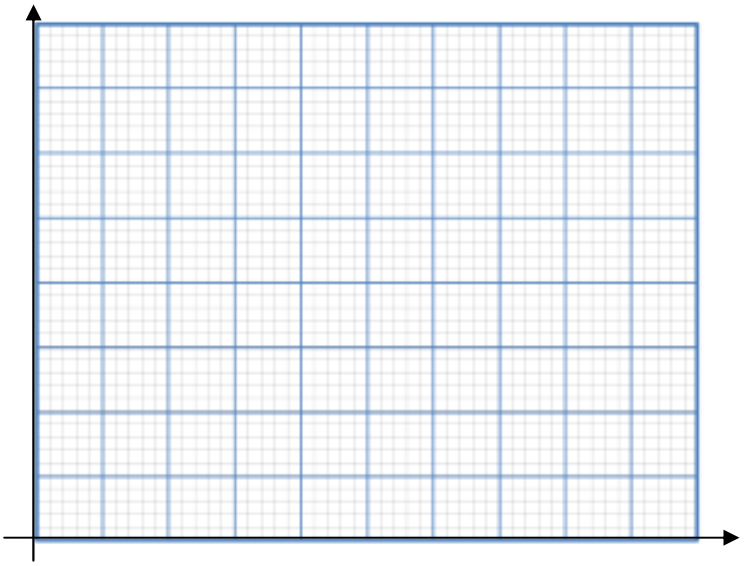
$$\text{Mode} = \ell + \left[\frac{f1 - f0}{2f1 - f0 - f2} \right] \text{x h}$$

05. Draw a less than type ogive for the given data.

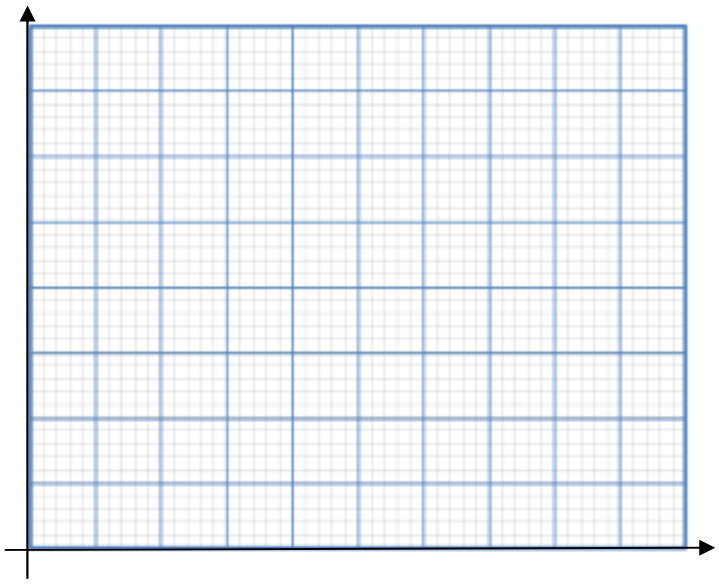
C - I	f	cf
100 – 120	12	
120 – 140	14	
140 – 160	8	
160 – 180	6	
180 – 200	10	



C - I	f	cf
5 – 15	6	
15 – 25	11	
25 – 35	21	
35 – 45	23	
45 - 55	14	
55 – 65	5	

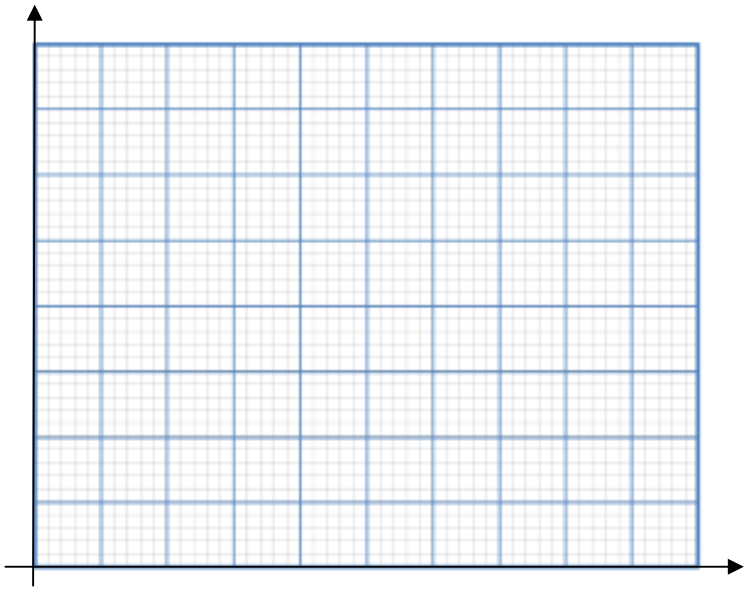


C - I	f	cf
50 – 55	2	
55 – 60	8	
60 – 65	12	
65 – 70	24	
70 – 75	18	
75 – 80	16	

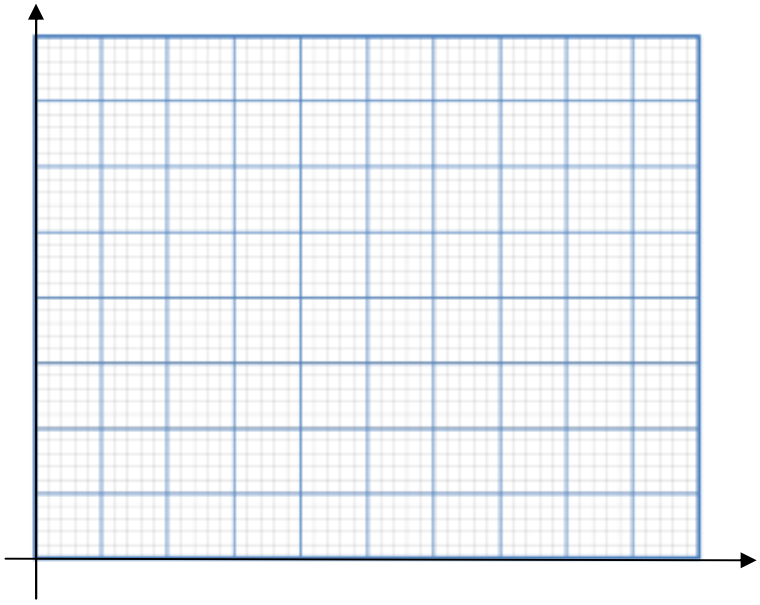


06. Draw a more than type ogive for the given data.

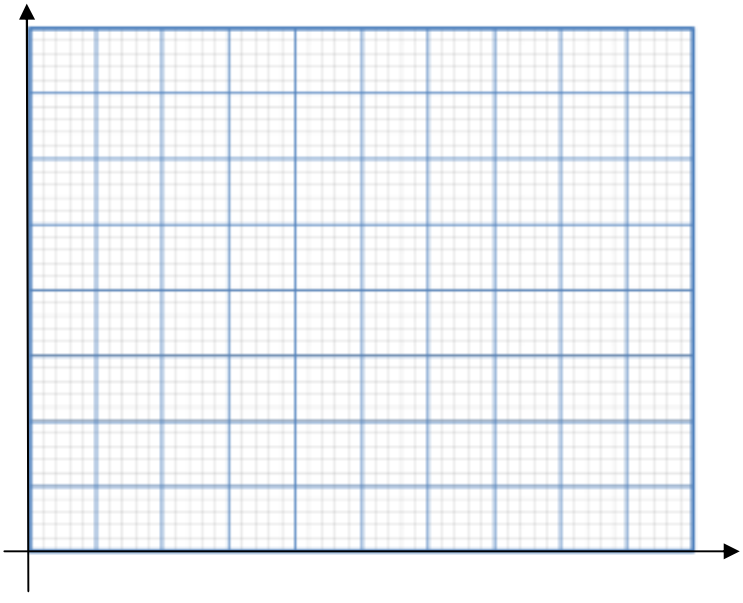
C - I	f	cf
100 – 120	12	
120 – 140	14	
140 – 160	8	
160 – 180	6	
180 – 200	10	



C - I	f	cf
50 – 55	2	
55 – 60	8	
60 – 65	12	
65 – 70	24	
70 – 75	18	
75 – 80	16	



C - I	f	cf
5 – 15	6	
15 – 25	11	
25 – 35	21	
35 – 45	23	
45 - 55	14	
55 – 65	5	



1) When a coin is tossed once, find the probability of getting

1) a tail 2) a head 3) both head and tail 4) head or tail

S = {  } = { , }

∴ n (s) =

1) a tail	**2) a head**	**3) both head and tail**	**4) head or tail**
A = { }, n(A) = $\therefore P(E) = \frac{n(A)}{n(S)} =$	B = { }, n(B) $\therefore P(E) = \frac{n(B)}{n(S)} =$	C = { }, n(C) = $\therefore P(E) = \frac{n(C)}{n(S)} =$	D = { }, n(D) = $\therefore P(E) = \frac{n(D)}{n(S)} =$

2) When a coin is tossed twice simultaneously, find the probability of getting

1) at least one head 2) at most one head 3) two heads 4) two tails

5) at least one tail 6) at most one tail 7) one of each face 8) two heads & two tails

S = {  ,  ,  ,  ,  ,  ,  }

= {(,), (,), (,), (,)}

∴ n(s) =

1) at least one head	**2) at most one head**	**3) two heads**	**4) two tails**
A = { }, n(A) = $\therefore P(E) = \frac{n(A)}{n(S)} =$	B = { }, n(B) = $\therefore P(E) = \frac{n(B)}{n(S)} =$	C = { }, n(C) = $\therefore P(E) = \frac{n(C)}{n(S)} =$	D = { }, n(D) = $\therefore P(E) = \frac{n(D)}{n(S)} =$
5) at least one tail	**6) at most one tail**	**7) one of each face**	**8) two heads and two tails**
E = { }, n(E) = $\therefore P(E) = \frac{n(E)}{n(S)} =$	F = { }, n(F) = $\therefore P(E) = \frac{n(F)}{n(S)} =$	G = { }, n(G) = $\therefore P(E) = \frac{n(G)}{n(S)} =$	H = { }, n(H) = $\therefore P(E) = \frac{n(H)}{n(S)} =$

3) When a die is throw once, find the probability of getting

(1) a number greater than 4 (2) a number less than or equal to 4

(3) a prime number (4) a number lying between 2 and 6

(5) an odd number (6) a square number

(7) a number multiple of 3 (8) a number 7

(9) a cube number (10) factors of 6

S = {  ,  ,  ,  ,  ,  }

= { , , , , , }

∴ n(s) =

1) a number greater than 4 A = { , }, n(A) = ∴ P(E) = $\frac{n(A)}{n(S)}$ =	**2) a number less than or equal to 4** B = { , , , }, n(B) = ∴ P(E) = $\frac{n(B)}{n(S)}$ =
3) a prime number C = { , , }, n(C) = ∴ P(E) = $\frac{n(C)}{n(S)}$ =	**4) a number lying between 2 and 6** D = { , , }, n(D) = ∴ P(E) = $\frac{n(D)}{n(S)}$ =
5) an odd number E = { , , , }, n(E) = ∴ P(E) = $\frac{n(E)}{n(S)}$ =	**6) a square number** F = { , }, n(F) = ∴ P(E) = $\frac{n(F)}{n(S)}$ =
7) a number multiple of 3 G = { , }, n(G) = ∴ P(G) = $\frac{n(G)}{n(S)}$ =	**8) a number 7** H = { }, n(H) = ∴ P(E) = $\frac{n(H)}{n(S)}$ =
9) a cube number I = { }, n(I) = ∴ P(E) = $\frac{n(I)}{n(S)}$ =	**10) the factor of 6** J = { , , , }, n(J) = ∴ P(E) = $\frac{n(J)}{n(S)}$ =

10TH MATHS ACTIVITY

4) When a dice is throw twice simultaneously, find the probability of getting

1. sum of two numbers is 8.	**2. sum of two numbers is greater than or equal to 12.**
3. the square numbers are come up each face.	**4. the product of two numbers is 6.**
5. the difference of two numbers is 4.	**6. the multiples of 3 are come up each face.**
7. the numbers lying between 2 to 5 come up each face.	**8. the similar numbers are come up each face.**
9. 5 will not come up each face.	**10. sum of two numbers is less than or equal to 12.**
11. the numbers greater than 3 are come up each face.	**12. 5 will come up at least once.**
13. odd numbers come up each face.	**14. even numbers come up each face.**
15.prime numbers come up each face.	**16.the number greater than 3 come up each face.**

S={(),(),(),(),(),()

( ), ( ), ( ), ( ), ( ), ( )

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( ), ( ), ( ), ( ), ( ), ( )

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( ) , ( ) , ( ) , ( ) , ( ) , ( )

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( ) ,( ) , ( ) , ( ) , ( ) , ( )

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( ) , ( ) , ( ) , ( ) , ( ) , ( )}

$$\therefore\ n(S) =$$

1. sum of two numbers is 8.

A = { ( ),( ),( ),( ),( )}

n(A) = $\therefore P(E) = \frac{n(A)}{n(S)} =$

2.sum of two no.s is greater than or equal to 12.

B = { ( ) }

n(B) = $\therefore P(E) = \frac{n(B)}{n(S)} =$

3. the square numbers are come up each face.

C = { ( ) , ( ) , ( ) , ( ) }

n(C) = $\therefore P(E) = \frac{n(C)}{n(S)} =$

4. the product of two numbers is 6.

D = { ( ), ( ), ( ), ( ) }

n(D) = $\therefore P(E) = \frac{n(D)}{n(S)} =$

5. the difference of two numbers is 4.

E = { ( ), ( ), ( ), ( ) }

n(E) = $\therefore P(E) = \frac{n(E)}{n(S)} =$

6. the multiples of 3 are come up each face.

F = { ( ), ( ), ( ), ( ) }

n(F) = $\therefore P(E) = \frac{n(F)}{n(S)} =$

7. the no.s lying between 2 to 5 come up each face.

G = { ( ), ( ), ( ), ( ) }

n(G) = $\therefore P(G) = \frac{n(G)}{n(S)} =$

8. the similar numbers are come up each face.

H ={( ), ( ), ( ), ( ), ( ), ( )}

n(H) = $\therefore P(E) = \frac{n(H)}{n(S)} =$

9. 5 will not come up each face.

I = { ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ) }

n(I) = $\therefore P(E) = \frac{n(I)}{n(S)} =$

10. sum of two no.s is less than or equal to 12.

J = { ( ), ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ), ( )}

n(J) = $\therefore P(E) = \frac{n(J)}{n(S)} =$

11. the no.s greater than 3 are come up each face.

K = { ( ), ( ), ( ),( ), ( ),
( ), ( ), ( ), ( ) }

n(K) = $\therefore P(E) = \frac{n(K)}{n(S)} =$

12. 5 will come up at least once.

L = { ( ), ( ), ( ), ( ),( ),
( ), ( ), ( ), ( ),( ),( )}

n(L) = $\therefore P(E) = \frac{n(L)}{n(S)} =$

13. odd numbers come up each face.

M = { ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ) }

n(M) = $\therefore P(E) = \frac{n(M)}{n(S)} =$

14. even numbers come up each face.

N = { ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ) }

n(N) = $\therefore P(E) = \frac{n(N)}{n(S)} =$

15.prime numbers come up each face.

O = { ( ), ( ), ( ), ( ), ( )
( ), ( ), ( ), ( ) }

n(O) = $\therefore P(E) = \frac{n(O)}{n(S)} =$

16.the no greater than 3 come up each face.

P = {( ), ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ), ( ),
( ), ( ), ( ), ( ), ( ), ( )}

n(P) = $\therefore P(E) = \frac{n(P)}{n(S)} =$

1) If P (E) = 0.05 ,find P($\bar{E}$)	**2) If P (E) = 0.85 ,find P ($\bar{E}$)**
3) If P (E) = 0.35 ,find P ($\bar{E}$)	**4) If P (E) = 0.65 ,find P ($\bar{E}$)**
5) If P (E) = 0.9 ,find P ($\bar{E}$)	**6) If P (E) = 0.5 ,find P ($\bar{E}$)**