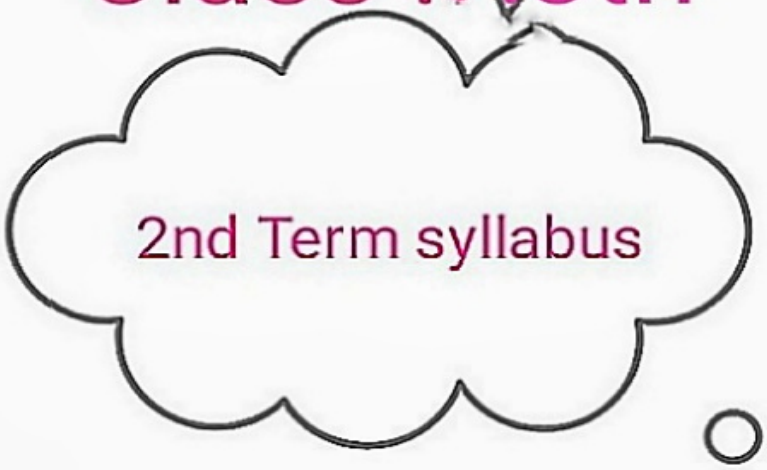
Welcome To

Class :::8th



1. chapter#11:
Trigonometric Ratios

2. chapter#12:
Volume And Surface area of pyramid;Cones and sphere

3. chapter#14:
Sets

Teacher Name:Mrs Zokia

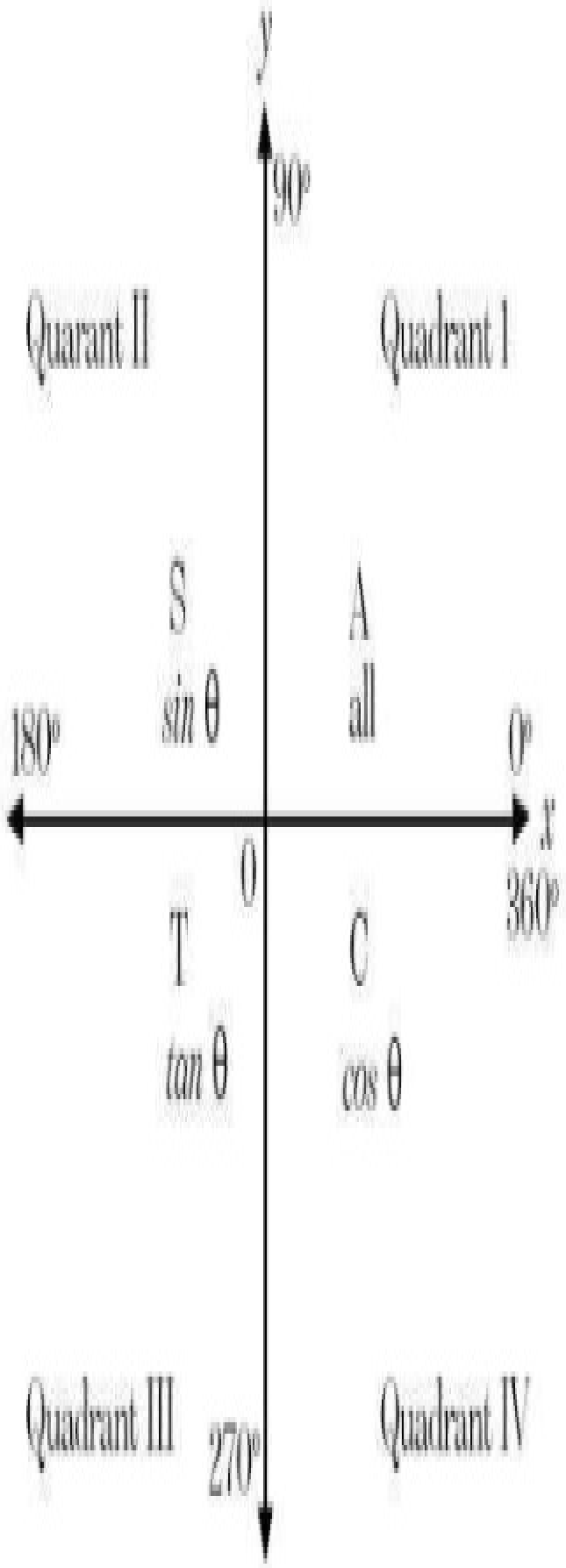
SOLVED WORKSHEET

01

SUBJECT: MATHS

CLASS VIII

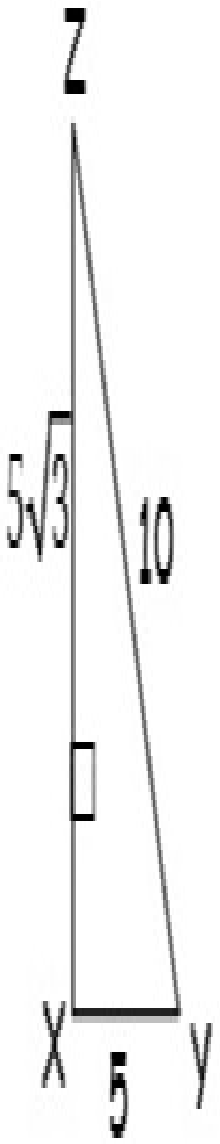
MRS ZOKIA NOREEN

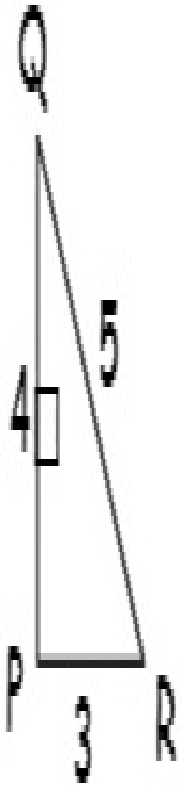


This diagram shows the following:

- Between 0 and 90 degrees, all the graphs are positive.
- Between 90 and 180 degrees, only sine is positive.
- Between 180 and 270 degrees, only tangent is positive.
- Between 270 and 360 degrees, only cosine is positive.

Calculate the trig ratios based on the pictures below:





1) $\sin Y = \frac{5\sqrt{3}}{10} = \frac{\sqrt{3}}{2}$

2) $\cos Y = \frac{5}{10} = \frac{1}{2}$

3) $\tan Y = \frac{5\sqrt{3}}{5} = \sqrt{3}$

4) $\sin Z = \frac{5}{10} = \frac{1}{2}$

5) $\cos Z = \frac{5\sqrt{3}}{10} = \frac{\sqrt{3}}{2}$

6) $\tan Z = \frac{5}{5\sqrt{3}} = \frac{\sqrt{3}}{3}$

7) $\sin R = \frac{4}{5}$

8) $\cos R = \frac{3}{5}$

9) $\tan R = \frac{4}{3}$

10) $\sin Q = \frac{3}{5}$

11) $\cos Q = \frac{4}{5}$

12) $\tan Q = \frac{3}{4}$

Trigonometric ratios of standard angles:

Standard Angles (θ)	0°	30°	45°	60°	90°	
	0	1	2	3	4	Write numbers from 0 to 4.
	$\frac{0}{4}=0$	$\frac{1}{4}$	$\frac{2}{4}=\frac{1}{2}$	$\frac{3}{4}$	$\frac{4}{4}=1$	Divide all by 4.
$\sin\theta$	$\sqrt{0}=0$	$\sqrt{\frac{1}{4}}=\frac{1}{2}$	$\sqrt{\frac{1}{2}}=\frac{1}{\sqrt{2}}$	$\sqrt{\frac{3}{4}}=\frac{\sqrt{3}}{2}$	$\sqrt{1}=1$	Find square root .
$\cos\theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0	Write the values in reverse order.
$\tan\theta$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	Not define	Use: $\tan\theta=\frac{\sin\theta}{\cos\theta}$
$\cot\theta$	Not define	$\sqrt{3}$	1	$\frac{1}{\sqrt{3}}$	0	Write the values in reverse order.
$\sec\theta$	1	$\frac{2}{\sqrt{3}}$	$\sqrt{2}$	2	Not define	Use: $\tan\theta=\frac{\sin\theta}{\cos\theta}$
$\operatorname{cosec}\theta$	Not define	2	$\sqrt{2}$	$\frac{2}{\sqrt{3}}$	1	Write the values in reverse order.

Trigonometric Ratios of some specific Angles: 0°, 30°, 45°, 60°, & 90°

T-ratio \ θ	0°	30°	45°	60°	90°
sin θ	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
cos θ	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
tan θ	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	Not defined
cosec θ	Not defined	2	$\sqrt{2}$	$\frac{2}{\sqrt{3}}$	1
sec θ	1	$\frac{2}{\sqrt{3}}$	$\sqrt{2}$	2	Not defined
cot θ	Not defined	$\sqrt{3}$	1	$\frac{1}{\sqrt{3}}$	0

Chapter # 11. Trigonometric Ratios .

Choose the best option.

1. Trigonometric ratios sin is _____.
   a) **P/h** b)P/b c) B/p

2. Trigonometric ratios cos is
   a) P/h b)**b/h** c) B/b

3. Trigonometric ratios tan is
   a) P/h b)**P/b** c) H/p

4. Sin 72^0 = x/12 then x =
   a) **11.4** b) 11.6 c) 11.8

5. Sin 37^0 = 5/y then y =
   a) 8.41 b) 8.51 c) **8.31**

6. $Sin^{-1}(0.45)$
   a) **26.7^0** b) 27.6^0 c) 29.6^0

7. $2\sin37^0+5\tan56^0=$
   a) 0.965 b) 0.530 c) **8.62**

8. There are _____ trigonometric ratios
   a)2 b) 4 c) **6**

9. Trigono is _____ word

a) **Greek** b)English c)Matematics

10.Metron means _____

a) Triangle b)**Measurement** c)length

11. Hypotenuse/Base

a) sinØ b)cosecantØ c)**secant**Ø

12. Base/perpendicular

a) cosecantØ b)secantØ c)**cotangent**Ø

13. Hypotenuse/perpendicular

a) **cosecant**Ø b)secantØ c)siØ