



BRIDGE COURSE

Bridge Course

IX - MATHEMATICS

1) Subtract the following:-

a) 7859 from 89587

$$\begin{aligned} &= 89587 - 7859 \\ &= \underline{\underline{82728}} \end{aligned}$$

$$\begin{array}{r} 89587 \\ - 7859 \\ \hline 82728 \end{array}$$

b) 23.78 from 30.

$$\begin{aligned} &= 30 - 23.78 \\ &= \underline{\underline{6.22}} \end{aligned}$$

$$\begin{array}{r} 30.00 \\ - 23.78 \\ \hline 6.22 \end{array}$$

c) $\frac{5}{6}$ from $\frac{8}{6}$

$$= \frac{8}{6} - \frac{5}{6}$$

$$= \frac{3}{6} = \underline{\underline{\frac{1}{2}}}$$

d) $\frac{7}{8}$ from $\frac{9}{8}$

$$= \frac{9}{8} - \frac{7}{8}$$

$$= \frac{72 - 56}{8}$$

$$= \frac{16}{8} = \underline{\underline{2}}$$

3) Complementary angles :-

Sum of two angles ~~are~~ forms 90° .

ex: 63° and 27°

33° and 57°

4) Supplementary angles :-

If the Sum of two angles form 180° . then the angles are called Supplementary angles.

ex: 60° and 120° .

110° and 70° .

5) Add $3x^2 - 4x + 4x^3 - 3$ and $-7x^3 + 9x + 15$:-

$$= 4x^3 + 3x^2 - 4x - 3 + (-7x^3 + 9x + 15)$$
$$= 4x^3 + 3x^2 - 4x - 3 - 7x^3 + 9x + 15$$
$$= -3x^3 + 3x^2 + 5x + 12$$

5) Subtract $7y^2 - 18y + 15$ from $18y^2 - 17 + 3y$:-

$$= 18y^2 + 3y - 17 - (7y^2 - 18y + 15)$$
$$= 18y^2 - 7y^2 + 3y - 18y - 17 - 15$$
$$= 11y^2 - 15y - 32$$

6) Multiply (i) 7948×5

$$\begin{array}{r} 7948 \times 5 \\ \hline 39740 \end{array}$$

(ii) 12.48×9

$$\begin{aligned} &= 12.48 \times 9 \\ &= \underline{112.32} \end{aligned}$$

(iii) 3.2×2.3

$$= 7.36$$

(iv) $\frac{2}{7} \times \frac{9}{4}$

$$= \frac{2 \times 9}{7 \times 4}$$

$$= \frac{9}{14}$$

7) Multiply $-2x^2 \times 18yz$

$$= 18yz \times -2x^2$$

$$= \underline{-36x^2yz}$$

8) Write the law's of exponents

$$a^x \times a^y = a^{x+y}$$

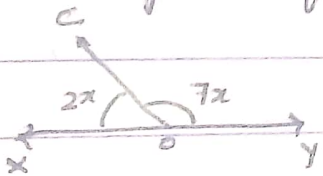
$$a^x \div a^y = a^{x-y}$$

$$(a^x)^y = a^{xy}$$

$$(ab)^x = a^x b^x$$

$$\left(\frac{a}{b}\right)^x = \frac{a^x}{b^x}$$

9) In the given fig find the value of x :



WKT

$$\hat{xoc} + \hat{coy} = 180^\circ$$

$$2x + 7x = 180$$

$$9x = 180$$

$$x = \frac{180}{9}$$

$$\boxed{x = 20}$$

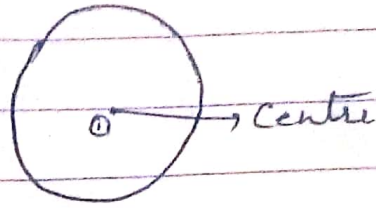
10) Area :-

(1) Square : a^2

(2) Triangle : $A = \frac{1}{2} \times b \times h$

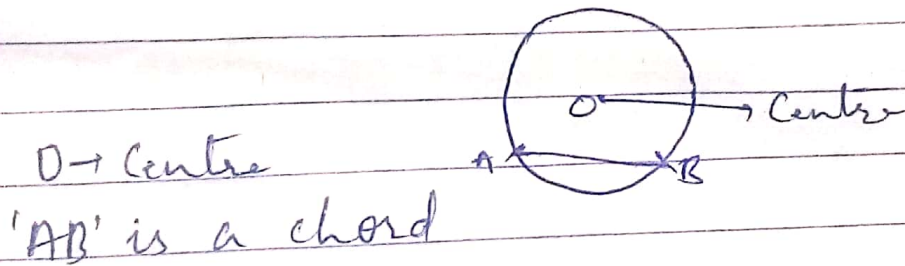
(i) Circle :

The locus of all points which are equidistant from a fixed point is called Circle.



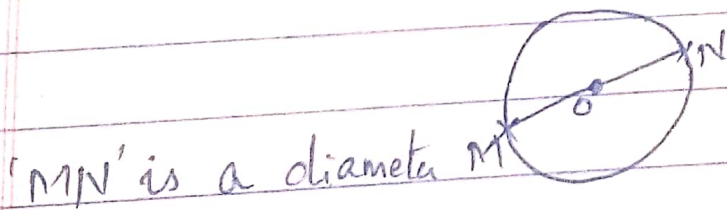
(ii) Chord :

A line formed by joining any two points on the circumference of the circle.



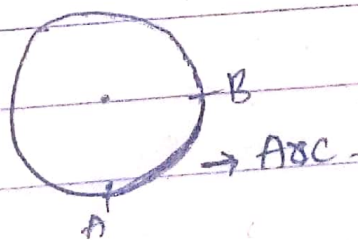
(iii) Diameter :

A chord passes through the centre of the circle is called diameter.



(iv) Arc :-

The part of the circumference of the circle



Mahendra Gold