

Q.7- Calculate ^{Volume} ~~area~~ of sphere
Diameter = $D = 14 \text{ cm}$

$$\pi = 22/7$$

Sol:- Volume of sphere = $\frac{4}{3} \pi r^3$

$$r = ?$$

$$r = D/2$$

$$r = 14/2$$

$$r = 7 \text{ cm}$$

Putting the values in formula

$$\text{Volume of sphere} = \frac{4}{3} \pi r^3$$

$$= \frac{4}{3} \times \frac{22}{7} \times 7^3$$

$$= \frac{4}{3} \times \frac{22}{\cancel{7}} \times \cancel{7} \times \cancel{7} \times \cancel{7}$$

$$= \frac{4}{3} \times 22 \times 49$$

$$= \frac{4}{3} \times 1078$$

$$= \frac{4312}{3}$$

$$1437.33$$

3	4312	22
	3	21
	13	10
	12	9
		1

Volume of sphere = ~~4312~~ 1437.33

$$\text{Volume of Sphere} = 1437.33 \text{ cm}^3$$

(b) Five friends total Savings = 25000 Rs.
Ratio: 1:2:3:4:5,
Smallest Share = ?

Sol.:-

The Smallest ratio will
give the Smallest Share
ratios are 1:2:3:4:5

So, 1 will give the Smallest
Share

So,

$$\text{Smallest Share(1)} = \frac{\text{Total Saving} \times (\text{Share})}{\text{Total ratio}}$$

$$= \frac{25000 \times 1}{1+2+3+4+5}$$

$$= \frac{25000}{15}$$

$$1666.6$$

$$\begin{array}{r} 15 \overline{) 25000} \\ \underline{15} \end{array}$$

$$\boxed{\text{Smallest Share} = 1666.66 \text{ Rs}}$$

$$100$$

$$90$$

$$100$$

$$90$$

$$100$$

$$90$$

$$100$$

Date. _____

(C) Spot error / Complete the series

i - 2, 6, 18, 54, 162, 486

$$2 \times 3 = 6$$

$$6 \times 3 = 18$$

$$18 \times 3 = 54$$

$$54 \times 3 = 162$$

$$162 \times 3 = 486$$

So, all the numbers are fit

b ii - 3, 5, 7, 11, 13, —

all numbers are prime

So, the series is

3, 5, 7, 11, 13, 17

d - A triangle with sides
5 cm, 12 cm and 13 cm.

Find all angles

Soln - Check if it is a right angle
triangle

$$H = \sqrt{B^2 + P^2}$$

$$13 = \sqrt{5^2 + 12^2}$$

$$= \sqrt{25 + 144}$$

$$= \sqrt{169}$$

$$= \sqrt{13^2}$$

$$13 = 13$$

So, it is a right angle triangle

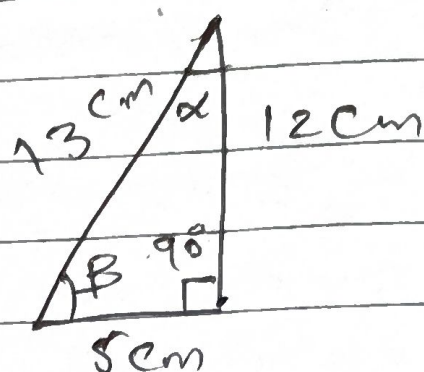
MTWTFSS

Date: _____

$$\sin \alpha = \frac{\text{Per}}{\text{HYP}}$$

$$\sin \alpha = \frac{12}{13}$$

$$\alpha = \sin^{-1}(12/13)$$



We know

$$\alpha + \beta + 90 = 180$$

$$\beta = 180 - 90 - \alpha$$

$$\text{OR } \cos \beta = \frac{\text{base}}{\text{HYP}}$$

$$= \frac{5}{13}$$

$$\beta = \cos^{-1}(5/13)$$

Q-6 (b) A Camera priced 200\$ get 25% off Plus 6% tax. Calculate total amount paid

So:- Discount = 25% of 200

$$\text{Discount} = 0.25 \times 200 = 50 \$$$

$$\text{Discount} = 50 \$$$

$$\begin{aligned} \text{price after 25\% discount} &= 200 - 50 \\ &= 150 \$ \end{aligned}$$

$$\text{Tax} = 6\% \text{ of } 150$$

$$= 0.06 \times 150$$

$$= 9 \$$$

$$\begin{aligned} \text{So, total amount Paid} &= 150 + 9 \\ &= 159 \$ \end{aligned}$$

(c) A bicycle covers 36 km at 18 km/h starting at 1 pm. What time does it reach?

Sol:-

$$\text{Distance} = 36 \text{ km}$$

$$\text{Speed} = 18 \text{ km/h}$$

$$\text{Time taken} = \frac{\text{Distance}}{\text{Speed}}$$

$$= \frac{36 \text{ km}}{18 \frac{\text{km}}{\text{h}}}$$

$$= 2 \text{ h}$$

So, starting at 1 pm, it will take 2 hours to reach

$$1 \text{ pm} + 2 \text{ hours} = 3 \text{ pm}$$

So, he will reach at 3 pm.

(d-) Unscramble these maths terms

i - STSTAITCITS

Correct: STATISTICS

ii - LGEBIMAR

Correct ALGEBRA (GAMBLER)