DAY: DATE:

Section-II

QNO 7

(a) Given data

$d = 14\,cm$

$\pi = \frac{22}{7}$

To find:-

Volume of a sphere = V = ?

Formula:-

$V = \frac{4}{3}\pi r^3$

Solution:-

$r = \frac{d}{2}$

$r = \frac{14\,cm}{2}$

$r = 7\,cm$

By putting volume

$V = \frac{4}{3}\pi r^3$

$V = \frac{4}{3} \times \frac{22}{7} (7\,cm)^3$

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

DAY: _____ DATE: _____

$$V = \frac{88}{3} \times 49 \text{ cm}^3$$

$$V = \frac{4312}{3} \text{ cm}^3$$

$$V = 1437.3 \text{ cm}^3$$

Answer

$$V = 1437.3 \text{ cm}^3$$

~~~~~

QNO7(b)

Given data

Total savings = 25000 Rs

Five friend's ratio = 1:2:3:4:5

To find:-

Smallest share = ?

Solution:-

Sum of all parts = 1+2+3+4+5

= 15

Value of one part = $\frac{25000}{15}$

= 1666.67 Rs

Smallest share = $1 \times \frac{25000}{15}$
~~~~~

DAY:_____ DATE:_____

Smalles share = 1666.67Rs

Answer:-

The smallest share is 1666.67Rs.

QNO7 (c)

(i) Which number doesnot find?

2, 6, 18, 54, 162, 486

Solution:-

$2 \times 3 = 6$

$6 \times 3 = 18$

$18 \times 3 = 54$

$54 \times 3 = 162$

$162 \times 3 = 486$

All numbers fit the pattern.

Answer:-

All numbers in the series are correct There is no error.

(ii) Complete series

3, 5, 7, 11, 13, ____

Solution:-

3, 5, 7, 11, 13, 17

This is a sequence of

DAY: DATE:

prime number.

Answer

The answer is 17.

Q No 7(d)

Given data

Sides of triangle:- 5cm, 12cm, 13cm

To find:-

Formula:-

Pythagorean theorem

$$a^2+b^2=c^2$$

Solution:-

$$5^2+12^2=13^2$$

$$25+144=169$$

$$169=169$$

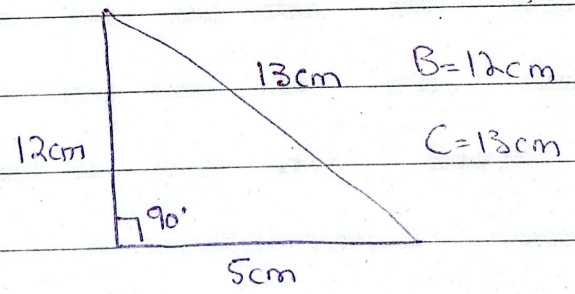
So, the triangle is a right angled triangle.

~~Let suppose:-~~

A = 5cm

B = 12cm

C = 13cm



Use law of Cosines to find other angles

DAY: _____ DATE: _____

To find A angle

$$\cos A = \frac{b^2+c^2-a^2}{2bc}$$

$$\cos A = \frac{12^2+13^2-5^2}{2\times12\times13}$$

$$\cos A = \frac{288}{312}$$

$$\cos A = 0.9231$$

$$A = \arccos(0.9231)$$

$$\boxed{A = 22.62^\circ}$$

To find angle B:

$$\cos B = \frac{a^2+c^2-b^2}{2ac}$$

$$\cos B = \frac{5^2+13^2-12^2}{2\times5\times13}$$

$$\cos B = 0.3846$$

$$B = \arccos(0.3846)$$

$$\boxed{B = 67.38^\circ}$$

Answer:-

The three angles of triangle are 22.62°, ~~and~~ 67.38° and 90°

$90^\circ + 22.62^\circ + 67.38^\circ = 180^\circ$

DAY: _____ DATE: _____

Q.6 (A)

Ratio of Apple to date = $\frac{3}{5}$

Difference between ratio part = 5 - 3 = 2

Apple candies exceed date = 35

Ratio of beery candies = 6

To find:-

No. of Berry Candies = ?

Solution

Volume of one part = $\frac{35}{2}$

$= 17.5$

Number of Berry candies = 6×17.5

$= 105$

Answer

The number of Berry candies is 105.

Q.6 (B)

Given data

Camera price = $200

Discount = 25%

Discount = $\frac{25 \times 200}{100}$

$= 50$

DAY: DATE:

Price after discount = 200 - 50

= 150

Tax on discounted price = 6%

$= \frac{6}{100} \times 150$

= $9

To find

Total amount paid = ?

Solution

Add tax to discounted price.

Total amount paid = 150 + 9

= $159

Answer:-

Total amount paid = $159

Q.6 (c)

Given data:-

D = 36 km

v = 18 km/hr

time = 1pm

To find:-

Arrival time = ?

DAY: _____ DATE: _____

Solution:-

$$T = \frac{d}{v}$$

$$T = \frac{36}{18}$$

$$\boxed{T = 2\text{hrs}}$$

Find arrival time

Arrival time = 1pm + 2hour

= 3pm

Answer:-

The bicycle reaches at 3pm.

Q.6(d)

(i) STSTAICITS

Answer:-

STATISTICS

(ii) LGEBMAR

Answer:-

ALGEBRA
