

Section B:

Q6:

(a)

Solution:

sum of 3 digit = 15

Suppose 3 digit $x, y,$ and z

$$x + y = 12 \quad \text{--- ① equation}$$

$$x - y = 2 \quad \text{--- ② equation}$$

By addition of 2 equation

$$x + y = 12$$

$$x - y = 2$$

$$\hline 2x = 14$$

$$\boxed{x = 7}$$

Put the value of x in equation 2

$$7 - y = 2$$

$$-y = 2 - 7$$

$$-y = -5$$

$$\boxed{y = 5}$$

Sum of $x, y,$ and z is 15

$$7 + 5 + z = 15$$

$$12 + z = 15$$

$$z = 15 - 12$$

$$\boxed{z = 3}$$

So, the three-digit number is 753.

(c)

Solution:

~~Given~~ Diameter = 6 cm

So, the $r = \frac{\text{Diameter}}{2}$

$$r = \frac{6}{2} = 3$$

We have to find circumference and area of circle

$$\text{Circumference} = 2\pi r$$

put the value of r in formula

$$\text{Circumference} = 2\pi 3$$

$$\text{Circumference} = \del{10.11 \text{ cm}} \underline{6\pi \text{ cm}}$$

or

$$\del{\text{Circumference} = 2 \times 3.14 \times 3 = 18.84 \text{ cm}}$$

$$\text{Circumference} = 6(3.14) = \boxed{18.84 \text{ cm}}$$

For Area

$$\text{Area} = \pi r^2$$

$$\text{Area} = \pi (3)^2$$

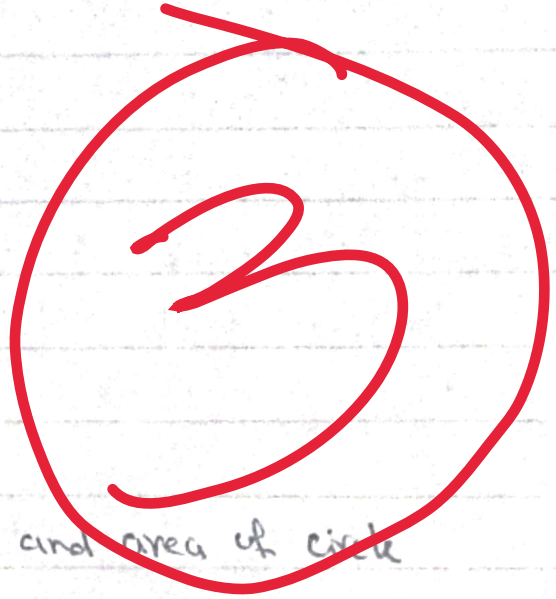
$$\text{Area} = 9\pi \del{26.7 \text{ cm}}$$

or

$$\del{\text{Area} = 3.14 \times 9 = 28.26 \text{ cm}}$$

$$\text{Area} = 9 \times 3.14 = \boxed{28.26 \text{ cm}}$$

Area = 28.26 cm and circumference = 18.84 cm



(d)(i)

Solution:

13, 24, 46, 90, 178, x .

All numbers have difference of equal to 2 and $\rightarrow 2$

So the last number is equal to $2(178) - 2$

$$356 - 2 = 354$$

$$\boxed{x = 354}$$

ii)

Solution:

5, 6, 9, 14, 21, x

All numbers have difference of odd number 1, 3, 5, 7, ...

So $x = 21 + 11$

$$\boxed{x = 32}$$

b)

Solution:

Total slices = 18

Ratio of slices = 2:3:4

Sum of ratio = 9

So, the number of slices in Pizza 1 = $\frac{2}{9} \times 18 = 4$

Number of slices in Pizza 2 = $\frac{3}{9} \times 18 = 6$

Number of slices in Pizza 3 = $\frac{4}{9} \times 18 = 8$

Weight of total Pizza = $40 \times 18 = \boxed{720 \text{ gm}}$

For Price of Pizza, we know that price of smaller pizza is 320

Price of Pizza 1 with 4 slices = $\frac{320}{4} = 80$

Total Price = $320 + (80 \times 6) + (80 \times 8) = \boxed{1440}$

Q8:
(a)

Solution:

Width = 60% of Length

Length = 15 ft

$$\text{Width} = 15 \times \frac{60}{100}$$

$$\text{Width} = 9 \text{ ft}$$

Room Dimension are length = 15 ft and width = 9 ft

3

(d)

Solution:

People like vegetable pizza = 37

People like chicken pizza = 25

people like neither = 3

3

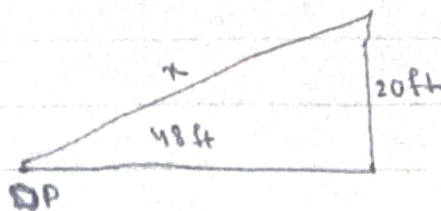
Probability of event A = $\frac{\text{Number of time A occur}}{\text{Total number of outcomes}}$

$$\text{Probability of person likes chicken pizza} = \frac{25}{65} = \frac{5}{13}$$

(b)

Solution:

Visually



By Pythagoras theorem

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

here $a = x$, $b = 48$ and $c = 20$

Follow step by step maths solutions

Given data
To find out
Solution

Putting the value

$$n^2 = (85)^2 - (49)^2$$

$$n^2 = 2704$$

$$n^2 = 2704$$

Taking square root on both sides

$$\sqrt{n^2} = \sqrt{2704}$$

$$n = \sqrt{2704}$$

$$n = 52$$

(c)

Solution:

Average marks with error = 52.15

Total student = 40

Total ~~marks~~ marks with error = $40 \times 52.15 = 2086$

Difference between 85 and 49 = 36

Subtracting 36 from total number

Correct total number = $2086 - 36$

" " " = 2050

Correct average marks = $\frac{2050}{40} = 51.25$

R.W

$$\begin{array}{r} 3448 \\ 48 \\ \hline 1384 \\ 192 \times \\ \hline 2304 \\ \hline 20 \\ 20 \\ \hline 400 \end{array}$$

$$\begin{array}{r} 2704 \\ 1852 \\ 676 \\ 838 \\ 109 \\ 13 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 13 \\ 39 \\ 13 \times \\ \hline 2 \times 2 \times 13 = \\ \times 13 \\ \hline 52 \end{array}$$

$$\begin{array}{r} 52 \cdot 15 \\ 4 \\ \hline 2086.00 \\ \hline 2050 \\ 49 \\ \hline 30 \end{array}$$