Section B:

Q6:

(a)

Solution:

Sum of 3 digit = 15

Suppose 3 digit x, y, and z

$x + y = 12$ — ① equation

$x - y = 2$ — ② equation

By addition of 2 equation

$$\begin{array}{r} x + y = 12 \\ x - y = 2 \\ \hline 2x = 14 \end{array}$$

$$\boxed{x = 7}$$

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:

Diameter = 6 cm

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

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

We have to find circumference and area of circle

Circumference $= 2\pi r$

Put the value of r in formula

Circumference $= 2\pi 3$

Circumference = 6π cm

or

Circumference = 6(3.14) = 18.84cm

For Area

Area $= \pi r^2$

Area $= \pi (3)^2$

Area $= 9\pi$ cm

or

Area $= 9 \times 3.14 =$ 28.26cm

Area = 28.26cm and circumference = 18.84cm

(d)(i)

Solution:

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

All numbers have difference of equal to 2x and -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 Pizza1 $= \frac{2}{9} \times \frac{2}{18} = 4$

Number of slices in Pizza2 $= \frac{3}{9_1} \times \frac{2}{18} = 6$

Number of slices in Pizza 3 $= \frac{4}{9} \times \frac{2}{18} = 8$

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

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

Price of ~~Pizza~~ 1 ~~weight~~ slices $= \frac{320}{4_1} = 80$

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

Q8:

(a)

Solution:

Width = 60% of Length

Length = 15ft

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

Width = 9ft

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

(c)

Solution:

People like vegetable pizza = 37

People like chicken pizza = 25

People like neither = 3

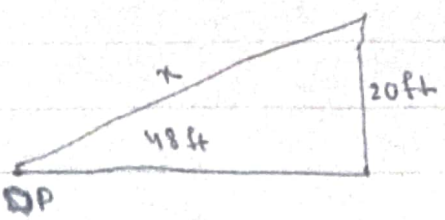
Probability of event A = $\frac{\text{Number of time A occur}}{\text{Total number of outcomes}}$

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

(b)

Solution:

Visually



By Pathagoras Theorem

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

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

Putting the values

$x^2 = (48)^2 + (20)^2$

$x^2 = 2304 + 400$

$x^2 = 2704$

Taking underroot both sides

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

$x = \sqrt{2704}$

$\boxed{x = 52 \text{ ft}}$

(C)

Solution:

Averge marks with error = 52.15

Total student = 40

Total ~~ave~~ marks with error = 40×52.15

$= 2086$

Difference between 85 and 44 = 36

Subtracting 36 from total number

Correct total number = 2086 - 36

" " " = 2050

Correct averge marks = $\frac{2050}{40} = \boxed{51.25}$

R.W

$48 \times 48 = 2304$

$20 \times 20 = 400$

2 | 2704
2 | 1352
2 | 676
2 | 338
13 | 169
13 | 13
1

$1.3 \times 1.3 = 1.69$

$2 \times 2 \times 13 = 52$

$52.15 \times 4 = 208.60$

$38.5 \times 49 = 36$