Question #6(a)

If sum of the 3-digit number... digit number?

Solution:

Given

Sum of the 3-digit number = 15

Sum of 10^{th} and Unit digit = 12

Difference of unit digit from 10^{th} digit = 2

Find

The three digit number = ?

Sum of the 3-digit number = H + T + U = 15

$$H + T + U = 15 \rightarrow (1)$$

Sum of 10^{th} and unit digit = T + U = 12

$$T + U = 12 \rightarrow (2)$$

Difference of the unit digit from 10^{th} = 2

$$T - U = 2 \rightarrow (3)$$

putting equ (2) in equ (1)

$$H + 12 = 15$$

$$H = -12 + 15$$

$$\boxed{H = 3}$$

Subtracting (2) and (3)

$$T + U = 12$$
$$\underline{\ominus T \ominus U = \ominus 2}$$
$$2U = 10$$

$$2U = 10$$

$$\frac{2U}{2} = \frac{10}{2}^{5}$$

$$\boxed{U = 5}$$

putting value of U in equ (2)

$$T + 5 = 12$$
$$T = -5 + 12$$
$$\boxed{T = 7}$$

So, the three digit number is 375.

Question #6(b)

A man ordered... of a total pizza.

Solution:

Given

Ratio of the slices = 2 : 3 : 4

Total Slices = 2+3+4

Total Slices = 9

Small, medium and large sizes pizza for 18 person per person slice = 1

The slices require for 18 person = 18

The small, medium and large pizza quantity = 2 each pizza size

Total Slices = 2 (9) = 18 slices

Weight of each Slice = 40gm

Weight of 18 Slices = 40gm x 18

Weight of 18 Slices = 720gm

Smaller pizza price = Rs. 320

Smaller pizza Contain 2 Slices = Rs 320

Price of 1 Slice = 160 rupees

Price of 18 Slices = Rs. 160 x 18

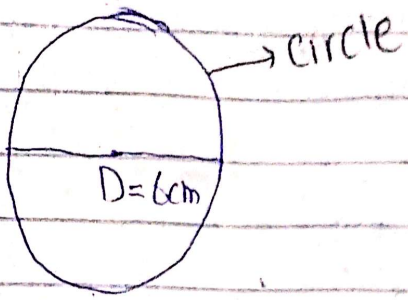
= Rs. 2880

So, the price of pizza is Rs 288 and the weight of pizza is 720gm.

Question #6(c)

Diameter of a circle ... area of a circle.

Solution:



Diameter = 6cm

$\frac{\text{Diameter}}{2}$ = radius

$$\text{Radius} = \frac{6\text{cm}}{2} = 3\text{cm}$$

$$\text{Circumference} = 2\pi r \qquad \because \frac{22}{7} = 3.14$$

$$= 2\left(\frac{22}{7}\right)(3)$$

$$= 18.84\text{cm}$$

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

$$= \frac{22}{7}(3)^2$$

$$= \frac{22}{7}(9)$$

$$= 3.14(9)$$

$= 28.26 cm^2$

The Circumference of Circle is 18.84cm and the area is $28.26 cm^2$.

(d) Question #6(d)

Identify the missing:

i) 13, 24, 46, 90, 178,

Solution:

13, 24, 46, 90, 178, 354

Let $n = 13$

We obtain next number $= n_1 = (n-1)2 = (13-1)2 = 24$

We obtain $n_2 = (n_1 - 1)2 = (24-1)2 = 46$

We obtain $n_3 = (n_2 - 1)2 = (46-1)2 = 90$

$n_4 = (n_3 - 1)2 = (90-1)2 = 178$

$n_5 = (n_4 - 1)2 = (178-1)2 = 354$

So the required number is 354.

ii) 5, 6, 9, 14, 21, 30

Solution:

We can obtain this number by Adding Odd digit number from the given Serie.

Let $n = 5$

$n_1 = n + 1 = 5 + 1 = 6$

$n_2 = n_1 + 3 = 6 + 3 = 9$

$n_3 = n_2 + 5 = 9 + 5 = 14$

$n_4 = n_3 + 7 = 14 + 7 = 21$

$n_5 = n_4 + 9 = 21 + 9 = 30$

So the required number is 30.

Question#8

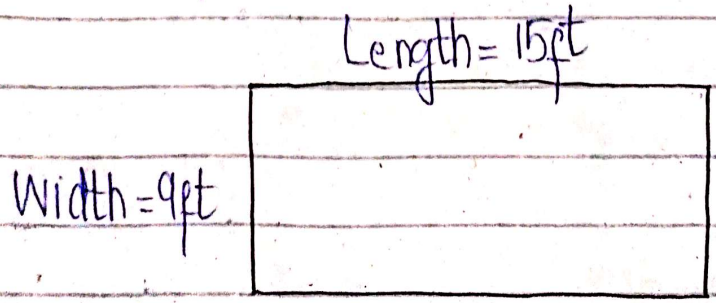
(a) The width of a rectangular room is ... rooms dimension?

Solution:

The Length of classroom = 15feet

Width is 60% of its length $= \frac{\cancel{60}^{3}}{\cancel{100}_{2}} (\cancel{15}^{3})_{1}$

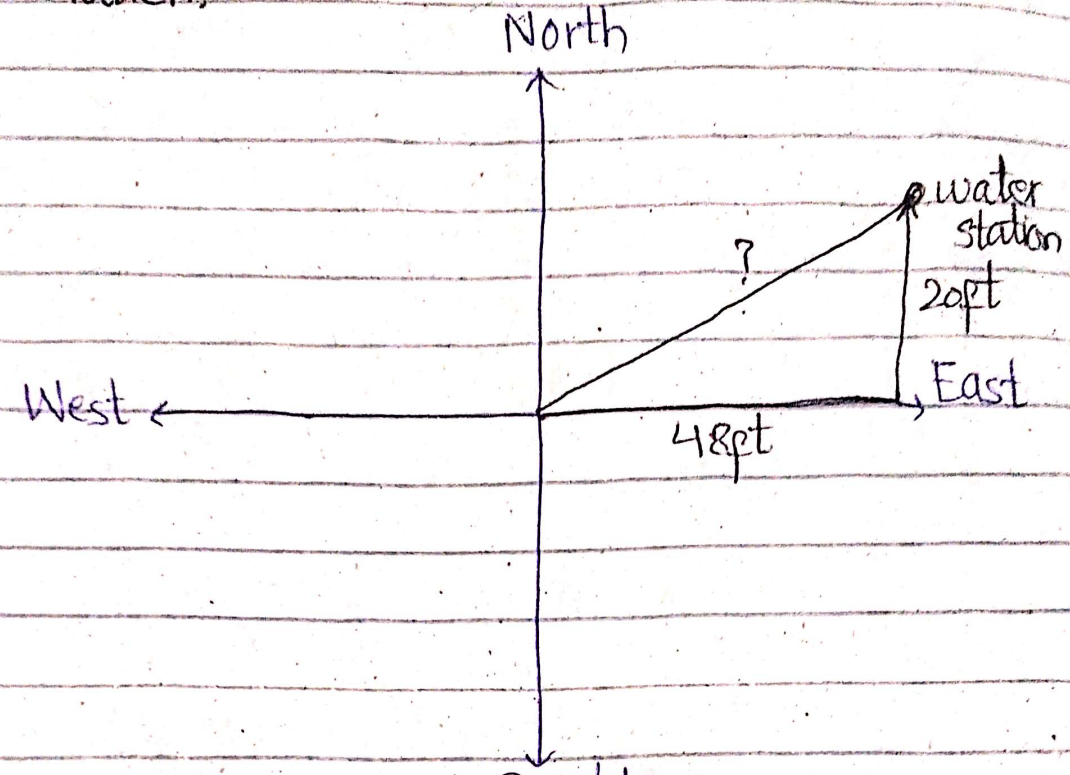
Width of a classroom = 9feet

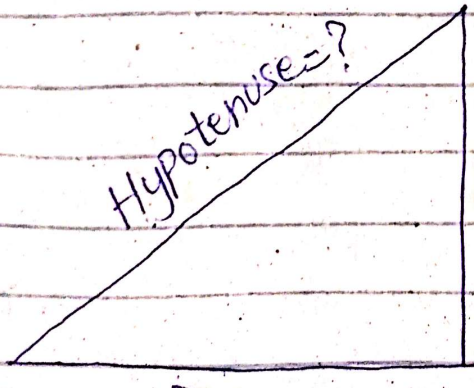


So the room dimension is 2D with length 15feet and width is 9feet respectively.

(b) While at the dog park... how far would she has run?

Solution:





By using pythagoras theorem

$$(H)^2 = (Base)^2 + (perp)^2$$

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

$(Hypo)^2 = 2304 + 400$

$(Hypo)^2 = 2704$

$\sqrt{(Hypo)^2} = \sqrt{2^2 \times 2^2 \times 13^2}$

Hypotenuse $= 4 \times 13$

Hypotenuse $= 52$ feet

IF Veena go/run straight from the starting point then she run 52 feet.

(c) In a class, the average marks of 40 ... of the class.

Solution:

Average marks of 40 students $= 52.15$

Average mark of 40 students $= \overline{52.15} - 49 + 85$

$= 137.15 - 49$

Average mark after correction $= 88.15$

Average mark of 40 students after correction is 88.15.

(d). 37 people like vegetable pizza and 25 like chicken pizza, 3 people neither. A person ... chicken pizza?

$$\text{Probability} = \frac{\text{No. of occurence of required outcome}}{\text{Total number of outcomes}}$$

Probability of Chicken pizza = ?

Total number of outcomes = 37 + 25 + 3
= 65

Probability of Chicken pizza = $\frac{25}{65}$

$$\boxed{\text{Probability of Chicken pizza} = \frac{5}{13}}$$

The probability of Chicken pizza is $\frac{5}{13}$

Question#3

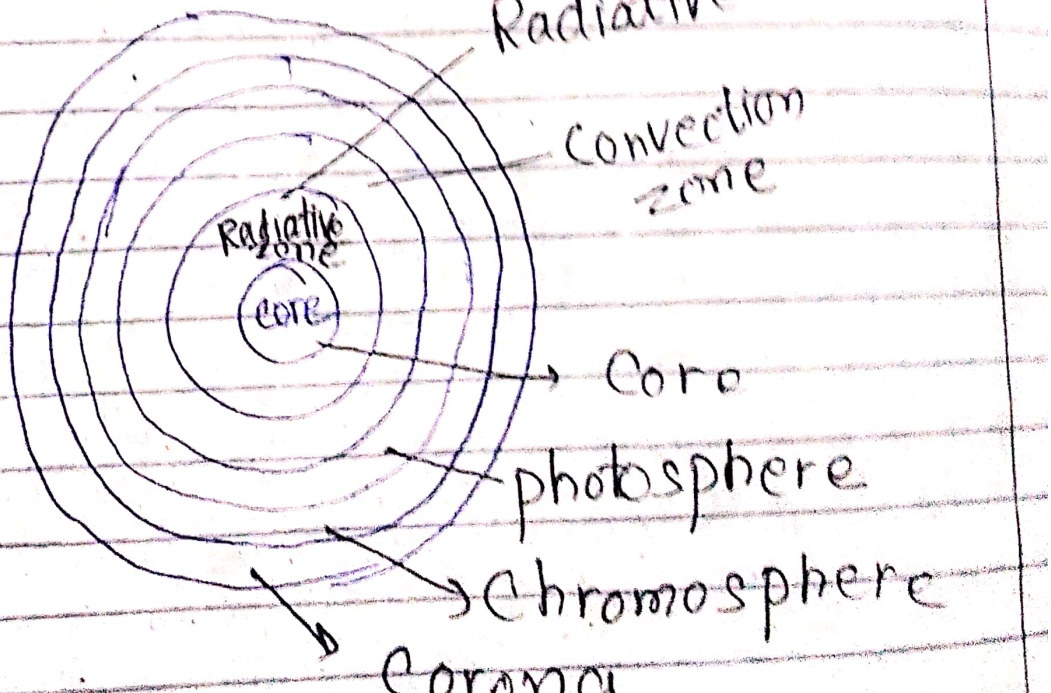
Explain and draw the structure of the Son.

It is a hot glowing ball of gases consist of Hydrogen and Helium. It

is located at the centre of our planet System and age of 4.5 billion years old.

Gases	Percentage
Hydrogen	73.4%
Helium	25%

Sun is the main source of energy for all living organisms. It is estimated that the remaining age of Sun is 5.5 billion years and after 5.5 billion years this system will vanishes. The Sun consists of six main layer.



The Core is the the innermost layer in the sun and release radiation in the

form of photons and gamma rays. After core the layer is radiative then Convection zone and then Photosphere. corono is the outermost layer of son and chromosphere is the inner in the Corona. Corona is also visible on the earth in the form of plasma.

(c) Discuss Environmental pollution. What could be its harmful effect? Give a few measures to curb it.

Environmental pollution: The Contamination of Components in the Environment which is harmful to human health and living organisms is called environmental pollution. There are many types of environmental pollution, few of them are enumerated below

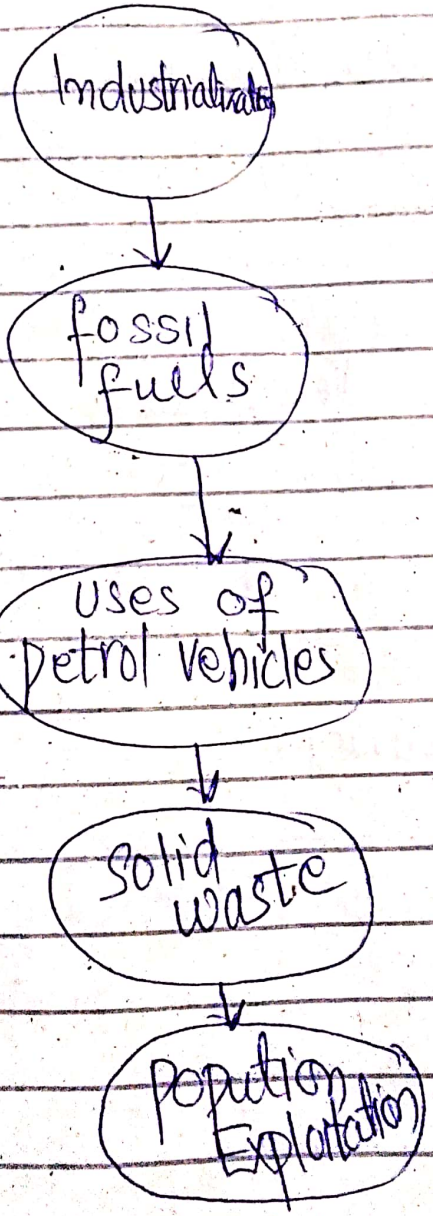
i) Air pollution
ii) Noise pollution
iii) land pollution
iv) Water pollution

Noise pollution is the main type/kind of pollution According to:- WHO "any unwanted and

unpleasant sound which is unbearable for human as well as living organisms"

causes: → Uses of Vehicles
→ Deforestation
→ Urbanization

Air pollution:
The situation in which atmosphere is polluted in such a concentration which is harmful for human health.



Measure or mitigation steps:

⇒ Uses of electric vehicle instead of petrol or diesel vehicles

⇒ Uses air refiner in industry to Combate the pollution.

⇒ Uses renewable form of energy instead of fossil fuels like wind and solar energy

⇒ Rapid urbanization process are also responsible for environmental pollution it can be reduced by planation and sponge cities.

⇒ Awareness about dangerous of pollution through electronic and print media

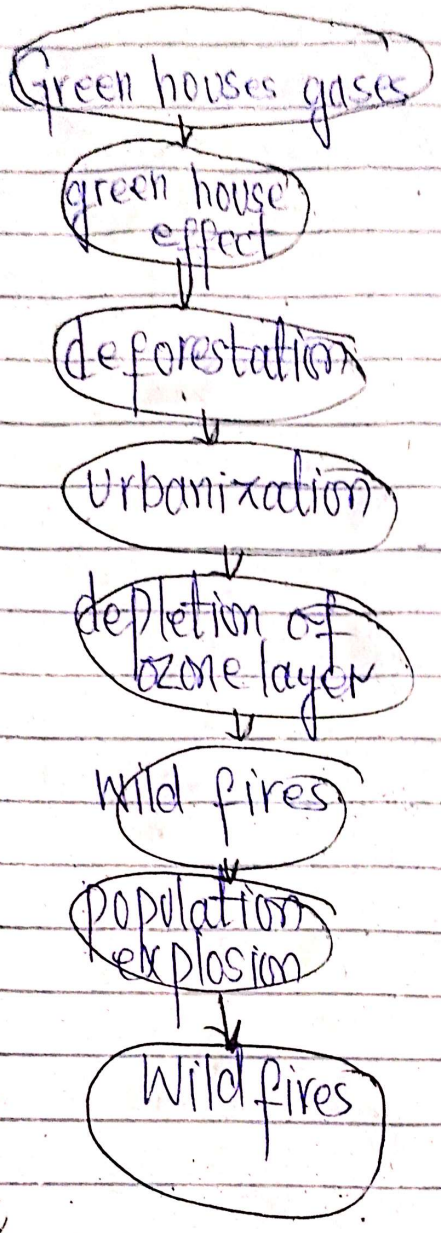
Question #5(b)

What is global warming?

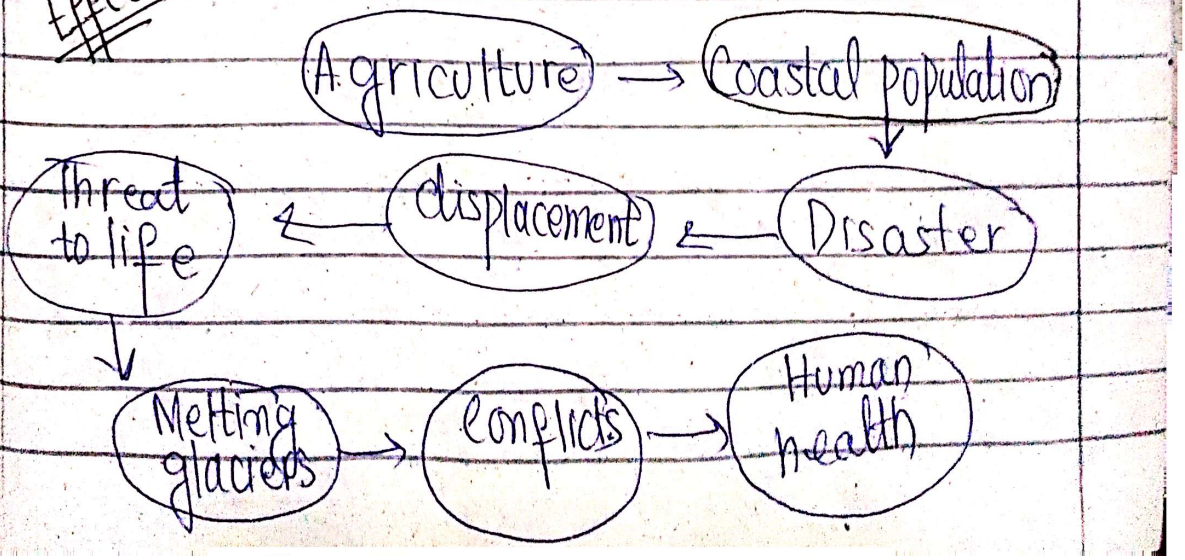
Global warming: It is a gradual and average increase in the temperature

of the earth

Causes



Effect



kyoto protocol:

It is a treaty signed b/w different countries in 1952 to control the level of Green House gases and then failed later.