

## Question no 7

a)

General Instructions

1. Give numbering to headings
2. Do not write lengthy paragraphs. Write medium sized paragraphs with headings.
3. Do not use table for comparison and contrast questions.
4. Draw figures/diagram/flowchart where needed.
5. Start new question from fresh page.
6. Write unit of the answer in ability section.
7. Explain mathematical steps and the reasoning for better score.
8. Change colour scheme for references to give them more visibility.
9. Manage time well.
10. Wide page borders are discouraged. Should be reasonable.
11. Avoid writing wrong references.
12. Give more weightage to expressedly asked part/s of the question.

$$\text{Price added} = 20\%$$

$$\text{original price} = x$$

$$\text{New price} = 80 \text{ RS}$$

$$80 = x + 20\%x$$

$$80 = x + \frac{20}{100}x$$

$$80 = \frac{5x + 2x}{5}$$

$$80 = \frac{7x}{5}$$

$$80 \times 5 = 7x$$

$$400 = 7x$$

$$x = \frac{400}{7} = 66.7 \text{ Ans}$$

c)

$${}^n C_r = \frac{n!}{r!(n-r)!}$$

$${}^8 C_3 = \frac{8!}{3!(8-3)!}$$

$${}^8 C_3 =$$

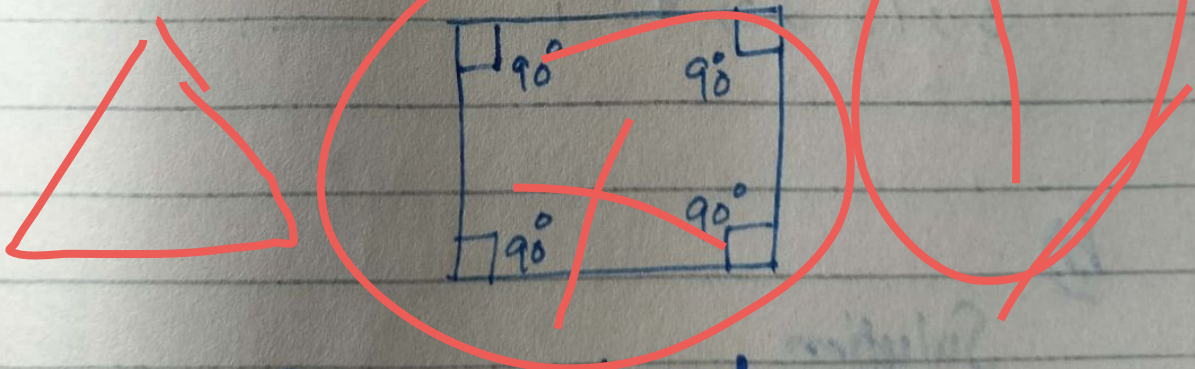


$$\begin{aligned} {}^8C_3 &= \frac{8 \times 7 \times 6 \times 5 \times 4 \times 3!}{3! \times 5} \\ &= \frac{8 \times 7 \times 6 \times 5 \times 4}{5} \\ &= 6720 \\ &= 1344 \text{ Ans} \end{aligned}$$

c)

### Equilateral Triangle

A Triangle in which all angles are equal to each other.

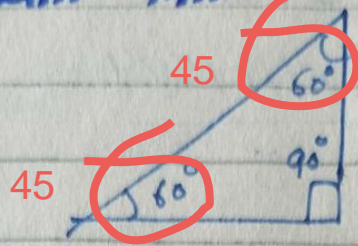


### Salene Triangle

A Triangle in which two angles are greater & smaller than  $90^\circ$ .



iii) triangle which is isosceles and right at the same time.



Isosceles triangle

## Question no 6

a) Identify series

$$10, 100, 200, 310, \underline{430}$$

$100 - 10 = 90$      $200 - 100 = 100$      $310 - 200 = 110$      $430 - 310 = 120$

$$3, 7, 23, 95, \underline{\quad}$$

Explain the reasoning in words

b)

## Solution

$$\text{Perimeter} = \frac{1}{2} \times 2?$$

$$= (3x - y) \text{ cm} + (2x - 3) \text{ cm} + (2x + y) \text{ cm}$$

$$= 3x - y + 2x - 3 + 2x + y$$

$$= 5x + 2x - 3 \Rightarrow 7x - 3 \Rightarrow 7x$$

$$7x = 3$$

$$x = \frac{3}{7}$$



$$15+x=3 \Rightarrow$$
$$x=1$$

c)

$$\text{Nisha age} = x$$

$$\text{Nisha Older than Romi} = 15+x$$

$$\text{Romi age} = y$$

$$(15+x) = \cancel{y(3+x)}$$

$$15+x-3-x = \cancel{y}$$

$$12 = y$$

$$x=12$$

~~Nisha~~

$$\text{Nisha current age} = 15+12$$

$$= \underline{27 \text{ Ans}}$$

