

6/1/2025

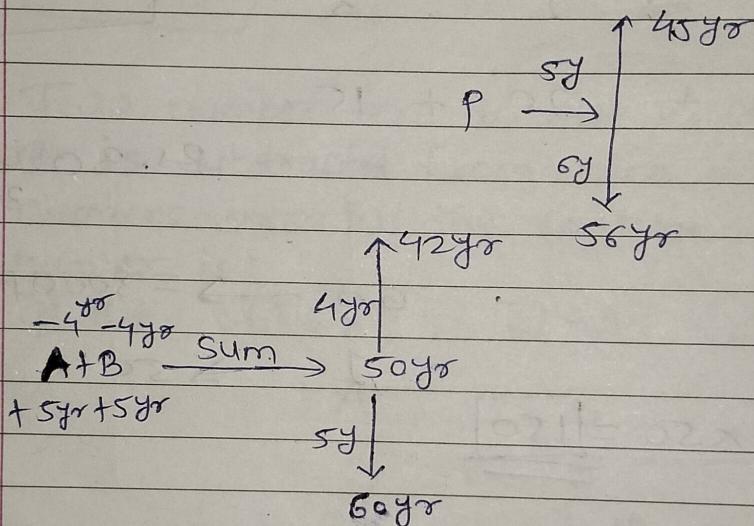
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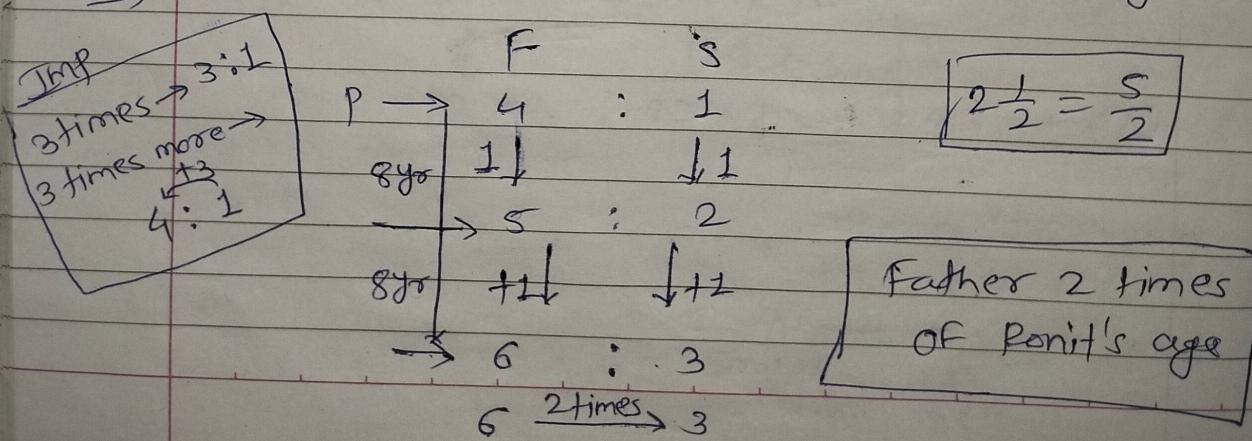
2. Problem on Ages

Ages

- ① Age Some years Ago / Before ↑ (were/was)
- ② Present/current Age — (is)
- ③ Age Some years Hence/After ↓ (will/would)



1) Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?



2) The sum of ages of 5 children born at the intervals of 3 years each is 50 years.

What is the age of the youngest child?

- A) 4 years
- B) 8 years
- C) 10 years
- D) None of these

Method 1:-

$$x + x+3 + x+6 + x+9 + x+12 = 50$$

$$5x + 30 = 50$$

$$5x = 20$$

$$\boxed{x = 4}$$

$$\text{youngest child} = \underline{\underline{x = 4}}$$

Method 2:-

Find the middle element of consecutive is divide Total to no. of childs.

$$\begin{array}{r} \checkmark(4)-3\ 7\ -3\ 10+3\ 13\ +3\ 16 \\ \quad \uparrow \\ \quad \text{middle} \end{array} \qquad \frac{50}{5} = 10$$

3) A father said to his son, "I was as old as you are at the present at the time of your birth".

If the father's age is 38 years now, the son's age five years back was:-

- A) 14 years
- B) 19 years
- C) 33 years
- D) 38 years

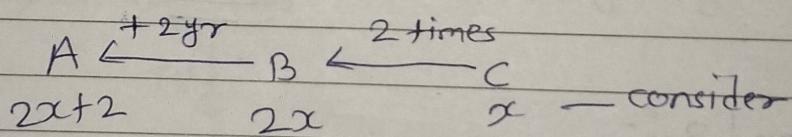
$$\begin{array}{ccc} F & & S \\ x & & 0 \\ \uparrow 2x & : & x \\ P \rightarrow & 2x & : x \end{array}$$

$$\begin{array}{ccc} 2 & : & 1 \\ \downarrow 19 & & \downarrow \\ 38yrs & & 19yrs \end{array}$$

Five years back
 $19 - 5 = \underline{\underline{14yrs}}$

9) A is two years older than B who is twice as old as C. If the total of the ages of A, B and C be 27, then how old is B?

- a) 7 b) 8 c) 9 d) 10 e) 11



$$5x + 2 = 27 \quad \text{Total of } A, B, C$$

$$5x = 25$$

$$x = 5yrs$$

$$B \text{ age} = 2x$$

$$= 2 \times 5$$

$$= \underline{\underline{10yrs}}$$

10) Present ages of Sameer and Anand are in the ratio of 5:4 respectively. Three years hence, the ratio of their ages will become 11:9 respectively. What is Anand's present age in years?

- a) 24 b) 27 c) 40 d) Cannot be determined
e) None of these

S A

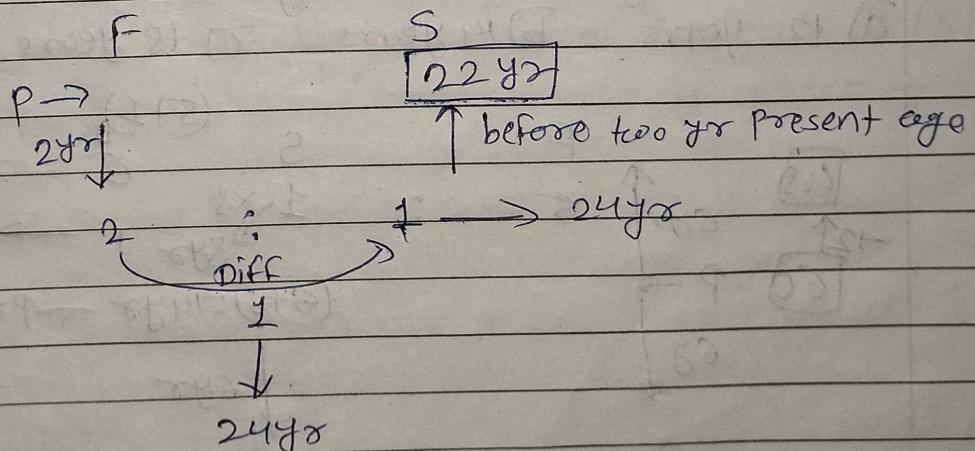
$$\begin{array}{rcccl}
 P & \rightarrow & S & : & A \\
 3yrs \downarrow & & \downarrow 6 & & \downarrow 5 \\
 & & 11 & : & 9
 \end{array}
 \quad \begin{array}{l}
 \text{difference not same} \\
 \text{make diff same} \\
 3yrs \text{ का DIFF निये multiply} \\
 \text{निये का DIFF } 3yrs \text{ multiply}
 \end{array}$$

S A

$$\begin{array}{rcccl}
 P & \rightarrow & S \times 2 & : & A \times 2 \\
 3yrs \downarrow & & \downarrow 11 & & \downarrow 1 \\
 & & 11 \times 1 & : & 9 \times 1
 \end{array}
 \quad 1yr \rightarrow 3yrs$$

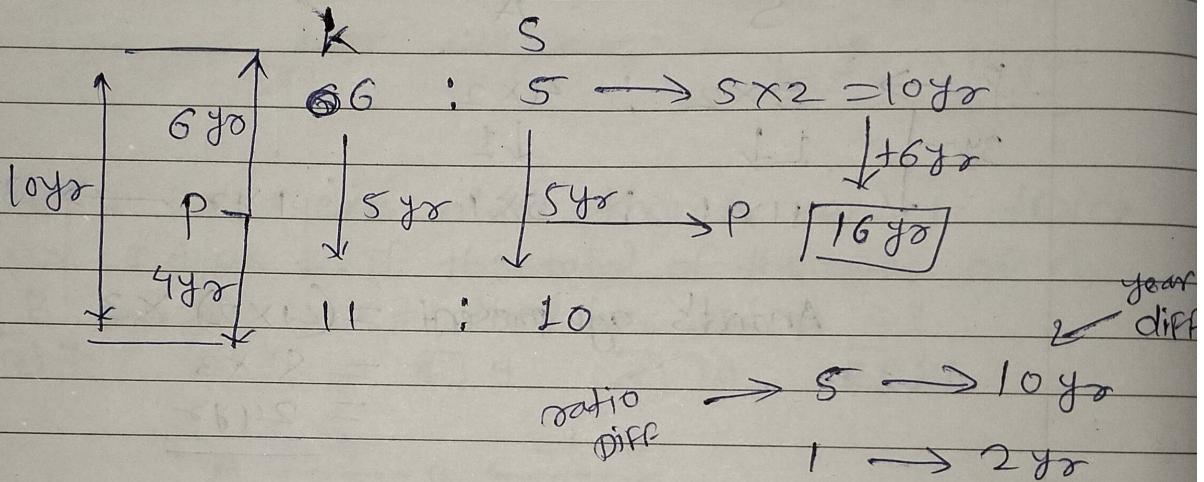
$$\begin{aligned}
 \text{Anand's age present} &= (4 \times 2) \times 3 \\
 &= 8 \times 3 \\
 &= \underline{\underline{24 \text{ yrs}}}
 \end{aligned}$$

- 6] A man is 24 years older than his son. In two years, his age will be twice the age of his son. The present age of his son is:
 a) 14 years b) 18 years c) 20 years d) 22 years



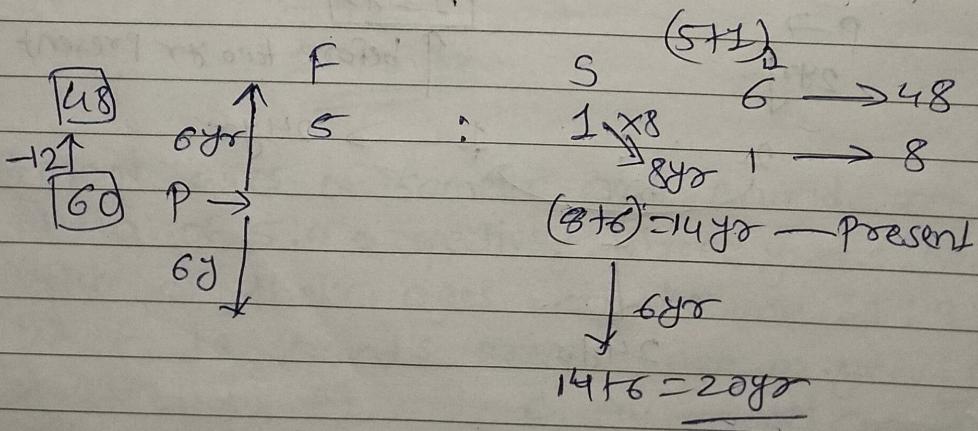
7) Six years ago, the ratio of the ages of Kunal and Sagar was 6:5. Four years hence, the ratio of their ages will be 11:10. What is Sagar's age at present?

- a) 6 years b) 18 years c) 20 years d) Cannot be determined
 e) None of these



8) The sum of the present ages of a father and his son is 60 years. Six years ago, father's age was five times the age of the son. After 6 years, son's age will be:-

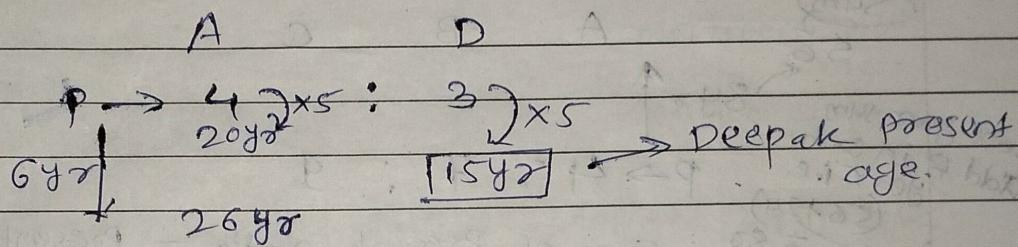
- a) 12 years b) 14 years c) 18 years d) 20 years



9) At present, the ratio between the ages of Arun and Deepak is 4:3. After 6 years, Arun's age will be 26 years. What is the age of Deepak at present?

- (a) 12 years (b) 15 years (c) 19 and half (d) 21 years

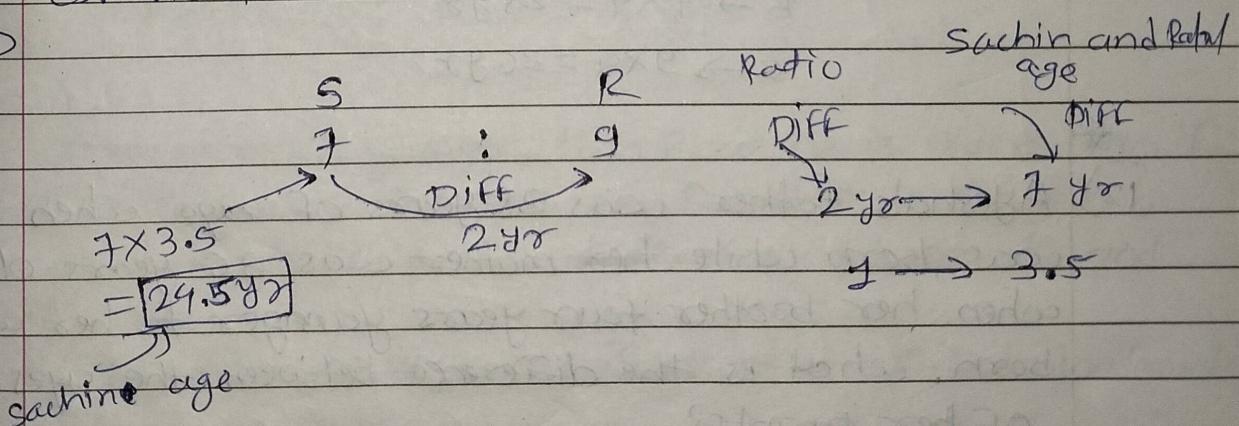
⇒



10) Sachin is younger than Rahul by 7 years. If their ages are in the respective ratio of 7:9, how old is Sachin?

- (a) 16 years (b) 18 years (c) 28 years (d) 24.5 years
(e) None of these.

⇒



11) The present ages of three persons in proportions $4:7:9$. Eight years ago, the sum of their ages was 56. Find their present ages (in years).

- (a) 8, 20, 28
- (b) 16, 28, 36
- (c) 20, 35, 45
- (d) None of these.

$\sum \downarrow$

present year sum
is add 8 in each year i.e.
 $(56+24)$

$\frac{56}{(8+8+8)} = 80$

$A : B : C \rightarrow 4 : 7 : 9$

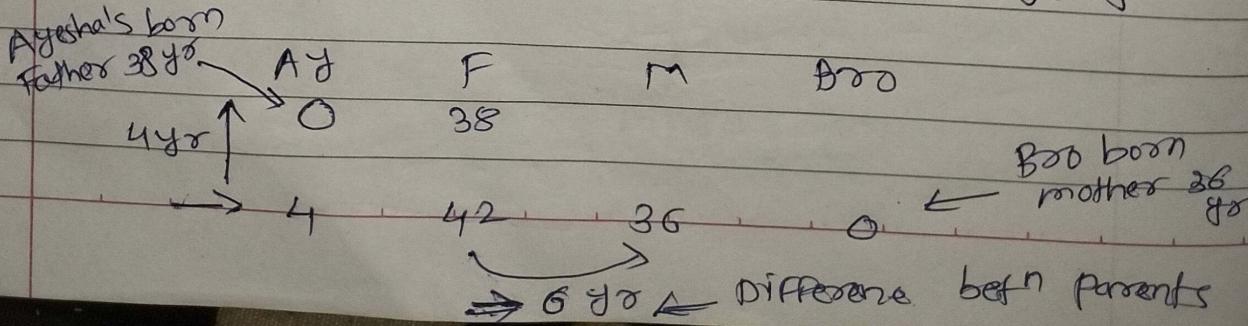
sum of Present ratio = Present Year sum
 $4 + 7 + 9 \rightarrow 80$
 $20 \rightarrow 80$
 $1 \rightarrow 4$

Present ages,

$A \rightarrow 4 \times 4 = 12 \text{ yrs}$
 $B \rightarrow 7 \times 4 = 28 \text{ yrs}$
 $C \rightarrow 9 \times 4 = 36 \text{ yrs}$

12) Ayesha's father was 38 years of age when she was born while her mother was 36 years old when her brother four years younger to her was born. What is the difference between the ages of her parents?

- (a) 2 years
- (b) 4 years
- (c) 6 years
- (d) 8 years



13) A person's present age is two-fifth of the age of his mother. After 8 years, he will be one-half of the age of his mother. How old is the mother at present?

- a) 32 years b) 36 years c) 40 years d) 48 years.

$$\begin{array}{ccc} S & & M \\ \text{P} \rightarrow 2 : & & 5 \\ 8\text{yr} \downarrow & \boxed{1} & \boxed{3} \leftarrow \\ & 1 : & 2 \end{array}$$

difference not
same
make same

3x2 = 6 Diff find multiply, total diff 3x2

$$\begin{array}{ccc} S & & M \\ \text{P} \rightarrow 2 \times 1(2) : & & 5 \times 1(5) \\ 8\text{yr} \downarrow & \boxed{1} & \boxed{1} \rightarrow \text{same} \\ & 1 \times 3(3) : & 2 \times 3(6) \end{array}$$

Diff ratio after
8yr
1yr → 8yr

Mother age: $5 \times 8 = \underline{\underline{40}}$

14) Q is as much younger than R as he is older than T. If the sum of the ages of R and T is 50 years, what is definitely the difference between R and Q's age?

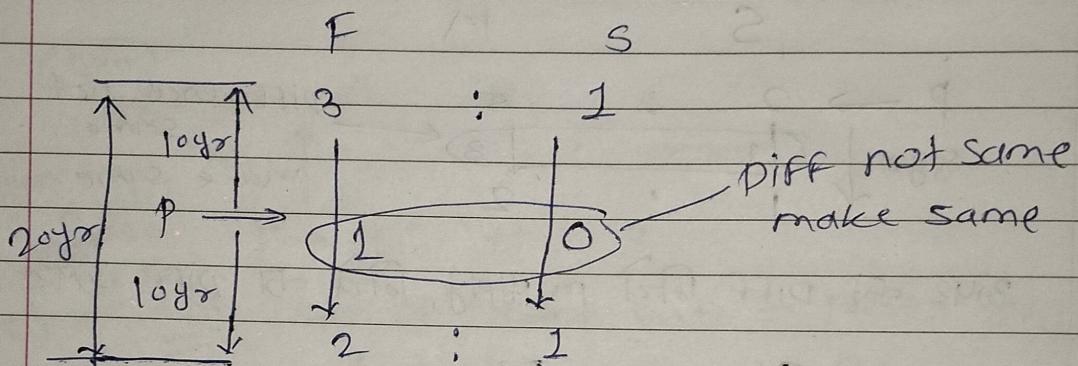
- a) 1 year b) 2 years c) 25 years d) Data inadequate
e) None of these.

$$\begin{array}{ccc} \text{successive} & & T + R = 50 \\ \text{difference} & & 1 + 49 \\ & T \xrightarrow{\text{same diff}} Q \xrightarrow{\text{same diff}} R & 2 + 48 \\ & 25 \xrightarrow{\frac{24}{23}} 49 & 3 + 47 \\ & 22 \xrightarrow{\frac{21}{20}} 48 & \vdots \vdots \\ & 17 \xrightarrow{\frac{16}{15}} 47 & 24 + 26 \text{ Data} \\ & 20 & \text{not same so, inadequate} \end{array}$$

$T + R = 50$
 $\rightarrow \text{middle} = \frac{50}{2} = 25$

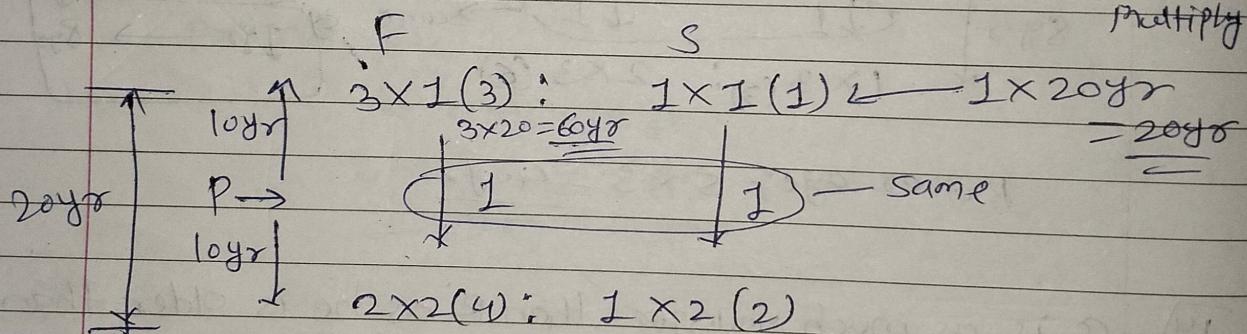
(15) The age of father 10 years ago was thrice the age of his son. Ten years hence, father's age will be twice that of his son. The ratio of their present ages is :

- A) 5:2 B) 7:3 C) 9:2 D) 13:4



3×2 का DIFF द्वारा multiply and निये का DIFF 3×2

multiply



i.e. 1 yr → 20 yrs

$$10 \text{ yrs before age} = F - 20 = 60 \text{ yrs}$$

$$S = 1 \times 20 = 20 \text{ yrs}$$

$$\text{Present age (10 yrs after)} = F - 60 + 10 = 70$$

$$S = 20 + 10 = 30$$

$$P \rightarrow 70 : 30$$

$$\boxed{7 : 3}$$