PROBLEMS ON AGES

Important Formulas on "Problems on Ages" :

1. If the current age is x, then n times the age is nx.
2. If the current age is x, then age n years later/hence = $x + n$.
3. If the current age is x, then age n years ago = $x - n$.
4. The ages in a ratio $a : b$ will be ax and bx.
5. If the current age is x, then $\frac{1}{n}$ of the age is $\frac{x}{n}$.

Problem:

Father is four times the age of his daughter. If after 5 years, he would be three times of daughter's age, then further after 5 years, how many times he would be of his daughter's age?

A. 1.5 times

B. 2 times

C. 2.5 times

D. 3 times

Answer: C

Solution:

Let the daughter's age be x and father's age be 4x.
So as per question, 4x + 5 = 3(x + 5). So x = 10.
Hence present age of daughter is 10 years and present age of father is 40 years.
So after 5 + 5 = 10 years, daughter age would be 20 years and father’s age would be 50 years.
Hence father would be 50/20 = 2.5 times of daughter’s age.

Problem:

What is Aman's present age, if after 20 years his age will be 10 times his age 10 years back?

A. 6.2 years
B. 7.7 years
C. 13.3 years
D. 10 years

Answer: C

Solution:

Let Aman's present age be x
Aman's age before 10 years = (x - 10)
Aman's age after 20 years = (x + 20)
We are given that, Aman's age after 20 years (x + 20) is 10 times his age 10 years back (x – 10)
Therefore, (x + 20) = 10 (x – 10)
Solving the equation, we get x + 20 = 10x – 100
9x = 120, x = 13.3 years

Problem:

Nisha is 15 years elder to Romi. If 5 years ago, Nisha was 3 times as old as Romi, then find Nisha's present age.

A. 32.5 years
B. 27.5 years
C. 25 years
D. 24.9 years

Answer: B

Solution:

Let age of Romi be y
Nisha is 15 years elder than Romi = (y + 15).
So Nisha's age 5 years ago = (y + 15 – 5).
Romi's age before 5 years = (y – 5)
5 years ago, Nisha is 3 times as old as Romi
$(y + 15 – 5) = 3 (y – 5)$
$\Rightarrow (y + 10) = (3y – 15)$
$\Rightarrow 2y = 25 \Rightarrow y = 12.5$
Romi's age = 12.5 years
Nisha's age = (y + 15) = (12.5 + 15) = 27.5 years.

Problem:

One year ago, the ratio of Honey and Piyush ages was 2: 3 respectively. After five years from now, this ratio becomes 4: 5. How old is Piyush now?

A. 5 years
B. 25 years
C. 10 years
D. 15 years

Answer: C

Solution:

We are given that age ratio of Honey: Piyush = 2: 3
Honey’s age = 2x and Piyush’s age = 3x
One year ago, their age was 2x and 3x.
Hence at present, Honey's age = 2x +1 and Piyush's age = 3x +1
After 5 years, Honey’s age = (2x +1) + 5 = (2x + 6)
Piyush's age = (3x +1) + 5 = (3x + 6)
After 5 years, this ratio becomes 4: 5. Therefore,
(2x+6) / (3x+6) = 4/5
$\Rightarrow$ 10x + 30 = 12x + 24 $\Rightarrow$ x = 3
Piyush's present age = (3x + 1) = (3x 3 + 1) = 10 years
Honey's present age = (2x + 1) = (2x 3 + 1) = 7 years

Problem:

Ten years ago, the age of mother was three times the age of her son. After ten years, mother's age will be twice that of his son. Find the ratio of their present ages.

A. 11 : 7
B. 9 : 5
C. 7 : 4
D. 7 : 3

Answer: D

Solution:

10 years ago, age of mother was three times the age of her son. Say, the age of son was x and mother's age was 3x.
At present: Mother's age is (3x + 10) and son’s age is (x + 10)
After ten years: Mother's age will be (3x + 10) +10 and son’s age will be (x + 10) + 10.
Given that, mother’s age is twice that of son after ten years.
(3x + 10) +10 = 2 [(x + 10) + 10]
(3x + 20) = 2[x + 20]
Solving the equation, we get x = 20
(3x + 10): (x + 10) = 70: 30 = 7: 3.

Problem:

Saransh is 50 years old and Nazma is 40 years old. How long ago was the ratio of their ages 3:2?

A. 20 years
B. 30 years
C. 40 years
D. 25 years

Answer: A

Solution:

Here, we have to calculate: How many years ago the ratio of their ages was 3:2. Let us assume x years ago
At present: Saransh is 50 years and Nazma is 40 years
x years ago: Saransh's age = (50 – x) and Nazma's age = (40 – x)
Given, the ratio of their ages was 3:2
(50-x) / (40-x) = 3/2
Solving, we get: x = 20
Therefore, the answer is 20 years.

Problem:

The ratio of the present ages of Pranav and Qureshi is 4:5. Five years ago, the ratio of their ages was 7:9. Find their present ages? (In years)

A. 40, 50
B. 18, 25
C. 40, 60
D. 20, 25

Answer: A

Solution:

Their present ages be 4X and 5X.
5 years ago, the ratio of their ages was 7:9, then (4X - 5) :(5X - 5) = 7:9
$X = 45 - 35 \Rightarrow X = 10$.
Their present ages are: 40, 50.

Problem:

A man said to his son, "I was one-third of your present age when you were born". If the present age of the man is 48 years, find the present age of the son.

A. 25.7 years
B. 28 years
C. 29.3 years
D. 36 years

Answer: D

Solution:

Present age of the son be P, he was born P years ago.
The age of the man was: (48 - P).
His age when the son was born should be equal to 1/3 of P.
$(48 - P) = 1/3\ P \Rightarrow P = 36$

Problem:

Dinesh is younger to Roshan by 9 years. If their ages are in the respective ratio of 4:5, how old is Dinesh?

A. 36 years
B. 23years
C. 29 years
D. Cannot be determined

Answer: A

Solution:

Let Roshan's age be x years.
Then, Dinesh 's age = (x - 9) years.
(x - 9)/x = 4/5
x = 45 Hence, Dinesh's age = (x - 9) = 36 years.

Problem:

The ratio of Sara's age 4 years ago and Vaishali's age after 4 years is 1: 1. Presently, the ratio of their ages is 5: 3. Find the ratio between Sara's age 4 years hence and Vaishali's age 4 years ago.

A. 1 : 3
B. 3 : 1
C. 4 : 3
D. 3 : 4

Answer: B

Solution:

Currently, the ratio of their ages is 5: 3.
Suppose, their ages are: 5x and 3x.
Sara’s age 4 years ago = 5x – 4
Vaishali’s age after 4 years = 3x + 4
Ratio of Sara’s age 4 years ago and Vaishali's age after 4 years is 1 : 1
Therefore,
(5x - 4) / (3x + 4) = 1/1
Solving, we get x = 4
We are required to find the ratio between Sara’s age 4 years hence and Vaishali’s age 4 years ago.
Sara's age: (5x + 4)
Vaishali's age: (3x – 4)
Putting the value of x, we get:
(5x + 4) / (3x - 4) = 3/1 = 3:1

Problem:

The present age of Aradhana and Aadrika is in the ratio 3:4. 5 years back, the ratio of their ages was 2:3. What is the present age of Aradhana?

A. 12 years
B. 15 years
C. 20 years
D. 22 years

Answer: B

Solution:

Let the present age of Aradhana be 3x
Let the present age of Aadrika be 4x
5 years back, Aradhana's age = (3x-5) years
5 years back, Aadrika's age = (4x-5)
According to the question, (3x-5) : (4x-5) = 2:3
$\Rightarrow (3x-5) \div (4x-5) = 2/3$
$\Rightarrow 3(3x-5) = 2(4x-5)$
$\Rightarrow 9x-15 = 8x-10$
$\Rightarrow x = 5$
Therefore, Aradhana's current age = $3 \times 5 = 15$ years

Problem:

If the total ages of Iqbal and Shikhar is 12 years more than the total age of Shikhar and Charu. Charu is how many years younger than Iqbal?

A: 11 years
B: 13 years
C: 15 years
D: None of the above

Answer: D

Solution:

Let the age of Iqbal be x
Let the age of Shikhar be y
Let the age of Charu be z
Then, according to question,
$(x+y) - (y+z) = 12$
$\Rightarrow x+y-y-z = 12$
$\Rightarrow x-z = 12$
Thus, Charu is 12 years younger than Iqbal

Problem:

A father is twice as old as his daughter. If 20 years ago, the age of the father was 10 times the age of the daughter, what is the present age of the father?

A. 40 years
B. 32 years
C. 33 years
D. 45 years

Answer: D

Solution:

Let the present age of the father be 2x
So, the present age of the daughter = x
According to the question,
$\Rightarrow 2x-20 = 10(x-20)$
$\Rightarrow 2x-20 = 10x - 200$
$\Rightarrow 8x = 180$
$\Rightarrow x = 22.5$
Thus, the present age of father = $22.5 \times 2 = 45$ years

Problem:

Arun is 2 years older than Bharat who is twice as old as Charat. If the total of the ages of Arun, Bharat and Charat be 27, then how old is Bharat?

A. 10 years
B. 12 years
C. 15 years
D. 13 years

Answer: A

Solution:

Let the present age of Charat be x
So, Bharat's present age = 2x
And Arun's present age = 2+2x
According to the question,
$x+2x+2+2x = 27$
$\Rightarrow 5x+2 = 27$
$\Rightarrow 5x=25$
$\Rightarrow x=5$
So, Bharat's age = $2\times5 = 10$ years

Problem:

The sum of the ages of a daughter and mother is 56 years; after four years the age of the mother will be three times that of the daughter. What is the age of the daughter and the mother respectively?

A. 12 years, 41 years
B. 12 years, 30 years
C. 11 years, 34 years
D. 12 years, 44 years

Answer: D

Solution:

Let the present age of the mother be x years and the present age of the daughter be y years

According to the question, $x+y = 56$ —- (1)

After 4 years, age of the Mother = $x+4$

Age of the daughter after 4 years = $y+4$

So,

$x+4 = 3 (y+4)$ —- (2)

$x+4 = 3y + 12$

From the equation (1) we get, $x = 56-y$

Thus, keep the value of x in equation 2, we get

$(56-y) + 4 = 3y + 12$

$\Rightarrow 60 – y = 3y + 12$

$\Rightarrow y = 12$

So, the daughter's present age is 12 years

Mother's present age = 56-12 = 44 years

Problem:

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. 10 years
C. 8 years
D. None of the above

Answer: A

Solution:

Let the ages of children be $x, (x+3), (x+6), (x+9), (x+12)$ years.

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

$\Rightarrow 5x = 20 \Rightarrow x = 4$

$\therefore$ Age of the youngest child $= x = 4\ years$

Problem:

What is John’s present age, if after 10 years his age will be 5 times his age 5 years back.

A. 6.2 years
B. 7.7 years
C. 8.7 years
D. 10 years

Answer: C

Solution:

Let John's present age be x
John's age before 5 years = (x - 5)
John's age after 10 years = (x + 10)
We are given that, John's age after 10 years (x + 10)
is 5 times his age 5 years back (x – 5)
Therefore,
$(x + 10) = 5 (x – 5)$
Solving the equation, we get
$x + 10 = 5x – 25$
$4x = 35$
$x = 8.75$ years

Problem:

Rahul is 15 years elder than Rohan. If 5 years ago, Rahul was 3 times as old as Rohan, then find Rahul's present age.

A. 32.5 years
B. 27.5 years
C. 25 years
D. 24.9 years

Answer: B

Solution:

Let age of Rohan be y

Rahul is 15 years elder than Rohan = (y + 15). So Rahul's age 5 years ago = (y + 15 – 5)

Rohan's age before 5 years = (y – 5)

5 years ago, **Rahul is 3 times as old as Rohan**

$(y + 15 – 5) = 3 (y – 5)$

$(y + 10) = (3y – 15)$

$2y = 25$

$y = 12.5$

Rohan's age = 12.5 years

Rahul's age = $(y + 15) = (12.5 + 15) = 27.5$ years

Problem:

One year ago, ratio of Harry and Peter age's was 5 : 6 respectively. After 4 years, this ratio becomes 6 : 7. How old is Peter?

A. 25 years
B. 26 years
C. 31 years
D. 35 years

Answer: C

Solution:

Hint: If ages in the numerical are mentioned in ratio A : B, then A : B will be Ax and Bx.

We are given that age ratio of Harry : Pitter = 5 : 6

Harry's age = 5x and Peter's age = 6x

One year ago, their age was 5x and 6x. Hence at present, Harry's age = 5x +1 and Peter's age = 6x +1

After 4 years,

Harry's age = (5x +1) + 4 = (5x + 5)

Peter's age = (6x +1) + 4 = (6x + 5)

After 4 years, this ratio becomes 6 : 7. Therefore,

$$\frac{Harr's\ Age}{6} = \frac{Peter's\ Age}{7}$$

$$\frac{5x+5}{6x+5} = \frac{6}{7} \Rightarrow 7(5x+5) = 6(6x+5) \Rightarrow x = 5$$

Peter's present age = (6x + 1) = (6 x 5 + 1) = 31 years

Harry's present age = (5x + 1) = (5 x 5 + 1) = 26 years

Problem:

Age of mother 10 years ago was 3 times the age of her son. After 10 years, mother's age will be twice that of his son. Find the ratio of their present ages.

A. 11 : 7
B. 9 : 5
C. 7 : 4
D. 7 : 3

Answer: D

Solution:

We are given that, age of mother 10 years ago was 3 times the age of her son

So, let age of son be x and as mother's age is 3 times the age of her son, let it be 3x, **three years ago.**

At present: Mother's age will be (3x + 10) and son's age will be (x + 10)

After 10 years: Mother's age will be (3x + 10) +10 and son's age will be (x + 10) + 10

Mother's age is twice that of son

$(3x + 10) + 10 = 2\,[(x + 10) + 10]$

$(3x + 20) = 2[x + 20]$

Solving the equation, we get $x = 20$

We are asked to find the present ratio.

$(3x + 10) : (x + 10) = 70 : 30 = 7 : 3$

Problem:

Sharad is 60 years old and Santosh is 80 years old. How many years ago was the ratio of their ages 4 : 6?

A. 10 years
B. 15 years
C. 20 years
D. 25 years

Answer: C

Solution:

Here, we have to calculate: How many **years ago** the ratio of their ages was 4 : 6
Let us assume x years ago
At present: Sharad is 60 years and Santosh is 80 years
x years ago: Sharad's age = (60 – x) and Santosh's age = (80 – x)
Ratio of their ages x years ago was 4 : 6

$$\frac{60 - x}{80 - x} = \frac{4}{6}$$

6(60 – x) = 4(80 – x)
360 – 6x = 320 – 4x
x = 20
Therefore, 20 years ago, the ratio of their ages was 4 : 6

Problem:

The ratio of Rohan's age 4 years ago and Rahul's age after 4 years is 1 : 1. If at present, the ratio of their ages is 5 : 3, then find the ratio between Rohan's age 4 years hence and Rahul's age 4 years ago.

A. 1 : 3
B. 3 : 1
C. 4 : 3
D. 3 : 4

Answer: B

Solution:

Hint: If ages in the numerical are mentioned in ratio A : B, then A : B will be Ax and Bx
1) At present: Ratio of their ages = 5 : 3. Therefore, 5 : 3 will be 5x and 3x.
Rohan's age 4 years ago = 5x – 4
Rahul's age after 4 years = 3x + 4

2) Ratio of Rohan's age 4 years ago and Rahul's age after 4 years is 1 : 1
Therefore,

$$\frac{5x-4}{3x+4}=\frac{1}{1}$$ Solving, we get x = 4

3) We are asked to find the ratio between Rohan's age 4 years hence and Rahul's age 4 years ago.
Rohan's age : (5x + 4)
Rahul's age: (3x – 4)
Ratio of Rahul's age and Rohan's age

$$\frac{5x+4}{3x-4}=\frac{24}{8}=\frac{3}{1}=3:1$$

Problem:

5 years ago, sister's age was 5 times the age of her brother and the sum of present ages of sister and brother is 34 years. What will be the age of her brother after 6 years?

A. 12 years
B. 13.5 years
C. 15 years
D. 20 years

Answer: C

Solution:

Let present age of brother be x and sister's age be 34 – x.

	Past Age (5 Yrs Ago)	**Present Age**	**Future Age (After 6 Yrs)**
Brother	(x – 5)	x	(x + 6) = ?
Sister	(34 – x) - 5	(30 – x)	

We are given, 5 years ago sister's age was 5 times the age of her brother.
Therefore,
(34 – x) – 5 = 5 (x – 5)
34 – x – 5 = 5x – 25
5x + x = 34 – 5 +25
6x = 54
x = 9
Future age (after 6 yrs) = (x + 6) = (9 + 6) = 15 years

Problem:

Father is 3 times more aged than his daughter. If after 5 years, he would be 3 times of daughter's age, then further after 5 years, how many times he would be of his daughter's age?

A. 1 (½) times
B. 2 times
C. 2.5 times
D. 3 times

Answer: C

Solution:

Let daughter's age be x and father's age be 3x.

Father's age is **3 times more aged than his daughter,** therefore **father's present age** = x + 3x = 4x

After 5 years, father's age is 3 times more than his daughter age.

(4x + 5) = 3 (x + 5)

(4x+5)=3 (x+5)

(4x + 5) = 3 (x + 5)

x = 10

After 5 years it was (4x + 5), **then after further 5 years,** father's age = (4x +10) and daughter's age = (x + 10)

$$\frac{4x + 10}{x + 10} = ?$$

Substitute the value of x, we get

$$\frac{(4 \times 10) + 10}{10 + 10} = \frac{50}{20} = 2.5$$

After further 5 years, father will be 2.5 times of daughter's age.

Problem:

The average age of husband, wife and their child 3 years ago was 27 years and that of wife and the child 5 years ago was 20 years. The present age of the husband is:

A. 35 years
B. 40 years
C. 45 years
D. 55 years

Answer: B

Solution:

Sum of the present ages of husband, wife and child = (27 * 3 + 3 * 3) years
= 90 years.

Sum of the present ages of wife and child = (20 * 2 + 5 * 2) years
= 50 years.

Therefore, Husband's present age = (90 - 50) years
= 40 years

Problem:

A is 2 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 years
B. 8 years
C. 9 years
D. 10 years

Answer: D

Solution:

Let C's age be x years

Then, B's age = 2x years

A's age = (2x + 2) years

(2x + 2) + 2x + x = 27

5x = 25 => x = 5

Hence, B's age = 2x = 10 years

Problem:

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 id the mother at present?

A. 32 years
B. 36 years
C. 40 years
D. 48 years

Answer: C

Solution:

Let the mother's present age be x years.

Then, the person's present age = 2/5 x years.

$(2/5\ x + 8) = 1/2\ (x + 8)$

$2(2x + 40) = 5(x + 8)$

$\Rightarrow x = 40$

Problem:

A father said to his son, 'I was as old as you are at 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

Answer: A

Solution:

Let the son's present age be x years.

Then, (38 - x) = x

=> 2x = 38

=> x = 19

Son's age 5 years back = (19 - 5) = 14 years

Problem:

A person was asked to state his age in years. His reply was, 'Take my age three years hence, multiply it by 3 and then subtract three times my age three years ago and you will know how old I am.' What was the age of the person?

A. 18 years
B. 20 years
C. 24 years
D. 32 years

Answer: A

Solution:

Let the present age of the person be x years.

Then, $3(x + 3) - 3(x - 3) = x$

$\Rightarrow 3x + 9 - 3x + 9 = x$

$\Rightarrow x = 18$

Problem:

The sum of the ages of a son and father is 56 years after four years the age of the father will be three times that of the son. Their ages respectively are:

A. 12 years, 44 years
B. 16 years, 42 years
C. 16 years, 48 years
D. 18 years, 36 years

Answer: A

Solution:

Present ages of son and father be x years (56 -x)years

(56- x +4) = 3(x + 4)

=> 4x =48

=> x = 12

Ages are 12 years, 44 years

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?

A. 2 times

B. $2\frac{1}{2}$ times

C. $2\frac{3}{4}$ times

D. 3 times

Answer:

Option **A**

Explanation:

Let Ronit's present age be x years. Then, father's present age $=(x + 3x)$ years $= 4x$ years.

$$\therefore \quad (4x + 8) = \frac{5}{2}(x + 8)$$

$$\Rightarrow 8x + 16 = 5x + 40$$

$$\Rightarrow 3x = 24$$

$$\Rightarrow x = 8.$$

$$\text{Hence, required ratio} = \frac{(4x + 16)}{(x + 16)} = \frac{48}{24} = 2.$$

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

Answer: Option **A**

Explanation:

Let the ages of children be x, $(x + 3)$, $(x + 6)$, $(x + 9)$ and $(x + 12)$ years.

Then, $x + (x + 3) + (x + 6) + (x + 9) + (x + 12) = 50$

$\Rightarrow 5x = 20$

$\Rightarrow x = 4.$

$\therefore$ Age of the youngest child $= x = 4$ years.

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

Answer: Option **A**

Explanation:

Let the present ages of Sameer and Anand be $5x$ years and $4x$ years respectively.

Then, $\frac{5x+3}{4x+3} = \frac{11}{9}$

$\Rightarrow 9(5x+3) = 11(4x+3)$

$\Rightarrow 45x + 27 = 44x + 33$

$\Rightarrow 45x - 44x = 33 - 27$

$\Rightarrow x = 6.$

$\therefore$ Anand's present age $= 4x = 24$ years.

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

Answer: Option **D**

Explanation:

Let the son's present age be x years. Then, man's present age = $(x + 24)$ years.

$\therefore (x + 24) + 2 = 2(x + 2)$

$\Rightarrow x + 26 = 2x + 4$

$\Rightarrow x = 22.$

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. 16 years

B. 18 years

C. 20 years

D. Cannot be determined

Answer: Option **A**

Explanation:

Let the ages of Kunal and Sagar 6 years ago be $6x$ and $5x$ years respectively.

Then, $\frac{(6x + 6) + 4}{(5x + 6) + 4} = \frac{11}{10}$

$\Rightarrow 10(6x + 10) = 11(5x + 10)$

$\Rightarrow 5x = 10$

$\Rightarrow x = 2.$

$\therefore$ Sagar's present age $= (5x + 6) = 16$ years.

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

Answer: Option **D**

Explanation:

Let the present ages of son and father be x and $(60 - x)$ years respectively.

Then, $(60 - x) - 6 = 5(x - 6)$

$\Rightarrow 54 - x = 5x - 30$

$\Rightarrow 6x = 84$

$\Rightarrow x = 14.$

$\therefore$ Son's age after 6 years = $(x + 6) = 20$ years..

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

Answer: Option B

Explanation:

Let the present ages of Arun and Deepak be $4x$ years and $3x$ years respectively. Then,

$4x + 6 = 26 \Leftrightarrow 4x = 20$

$x = 5.$

$\therefore$ Deepak's age $= 3x = 15$ years.

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

Answer: Option **D**

Explanation:

Let Rahul's age be x years.

Then, Sachin's age = $(x - 7)$ years.

$$\therefore \frac{x - 7}{x} = \frac{7}{9}$$

$$\Rightarrow 9x - 63 = 7x$$

$$\Rightarrow 2x = 63$$

$$\Rightarrow x = 31.5$$

Hence, Sachin's age $=(x - 7) = 24.5$ years.

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

Answer: Option **B**

Explanation:

Let their present ages be $4x$, $7x$ and $9x$ years respectively.

Then, $(4x - 8) + (7x - 8) + (9x - 8) = 56$

$\Rightarrow 20x = 80$

$\Rightarrow x = 4.$

$\therefore$ Their present ages are $4x = 16$ years, $7x = 28$ years and $9x = 36$ years respectively.

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

Answer: Option C

Explanation:

Mother's age when Ayesha's brother was born = 36 years.

Father's age when Ayesha's brother was born = (38 + 4) years = 42 years.

∴ Required difference = (42 - 36) years = 6 years.

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

Answer: Option **C**

Explanation:

Let the mother's present age be x years.

Then, the person's present age = $\left(\frac{2}{5}x\right)$ years.

$\therefore \quad \left(\frac{2}{5}x + 8\right) = \frac{1}{2}(x + 8)$

$\Rightarrow 2(2x + 40) = 5(x + 8)$

$\Rightarrow x = 40.$

THANK YOU