Problems on Ages

1. The most important thing is to read the question carefully and gradually form the equation which shall help you answer the question.
2. Basic things like addition, subtraction, multiplication and division will help a candidate reach the answer and no complicated calculations are required to answer such questions.
3. Arrange the values given by placing them correctly in an equation by giving variables to the unknown values
4. Once the equation has been formed, solve the equation to find the answer.
5. The final step is to recheck the answer obtained by placing it in the equation formed to ensure that no error has been made while calculating.

Q 1. 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?

1. 12 years
2. 15 years
3. 20 years
4. 22 years
5. 10 years

Answer: (2) 15 years

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) ÷ (4x-5) = 2/3

$\Rightarrow$3(3x-5) = 2(4x-5)

$\Rightarrow$9x-15 = 8x-10

$\Rightarrow$x = 5

Therefore, Aradhana's current age = 3×5 = 15 years

Q 2. 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?

1. 11 years
2. 13 years
3. 15 years
4. None of the above
5. Cannot be Determined

Answer: (4) None of the Above

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

Q 3. 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?

1. 40 years
2. 32 years

3. 33 years
   4. 45 years
   5. 22 years

Answer: (4) 45 years

Solution:

Let the present age of the father be 2x

So, the present age of the daughter = x

According to the question,

⇒2x-20 = 10(x-20)

⇒2x-20 = 10x – 200

⇒8x = 180

⇒x= 22.5

Thus, the present age of father = 22.5 × 2 = 45 years

Q 4. 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?

   1. 10 years
   2. 12 years
   3. 15 years
   4. 13 years
   5. 11 years

Answer: (1) 10 years

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

⇒5x+2 = 27

⇒5x=25

⇒x=5

So, Bharat's age = 2×5 = 10 years

Q 5. 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?

1. 12 years, 41 years
2. 12 years, 30 years
3. 11 years, 34 years
4. 12 years, 44 years
5. 21 years, 42 years

Answer: (4) 12 years, 44 years

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