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Problems on Ages

Important Statements and Equations for "Problems based on Ages:

- If the present age is y, then n times the present age = ny.
- If the present age is x, then age n years later/hence = x + n.
- If the present age is x, then age n years ago = x – n.
- The ages in a ratio a: b will be ax and bx.
- If the current age is y, then 1/n of the age is y/n.

Question: 01

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 ½ times
C. 2 ¾ times
D. 3 times

Answer:A

Explanation:

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

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

$8x + 16 = 5x + 40$

$3x = 24$

$x = 8.$

Hence, required ratio = $(4x + 16)/(x + 16) = 48/24 = 2.$

Question: 02

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:A

Explanation:

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

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

$5x = 20$

$x = 4$.

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

Question: 03

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

Answer:A

Explanation:

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

Question: 04

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

Answer:D

Explanation:

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.

Question: 05

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. 30

D. None of these

Answer:A

Explanation:

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

Then, $(5x + 3)/ (4x + 3) = 11/ 9$

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

$45x + 27 = 44x + 33$

$45x - 44x = 33 - 27$

$x = 6$.

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

Question: 06

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:D

Explanation:

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

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

$x + 26 = 2x + 4$

$x = 22$.

Question: 07

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. None of these

Answer:A

Explanation: 07

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

Then, ((6*x* + 6) + 4) / ((5*x* + 6) + 4) = 11/10

10(6*x* + 10) = 11(5*x* + 10)

5*x* = 10

x = 2.

Sagar's present age = (5*x* + 6) = 16 years.

Question: 08

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:D

Explanation: 08

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

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

54 - x = 5x - 30

6x = 84

x = 14.

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

Question: 09

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:B

Explanation:

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

$4x + 6 = 26$

$4x = 20$

$x = 5$.

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

Question: 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

Answer:D

Explanation:

Let Rahul's age be x years.

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

x - 7/x=7/ 9

$9x - 63 = 7x$

$2x = 63$

$x = 31.5$

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

Question: 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

Answer:B

Explanation: 11

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

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

$20x = 80$

$x = 4$.

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

Question: 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

Answer: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.

Question: 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

Answer:C

Explanation:

Let the mother's present age be x years.

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

{2/5x+8} = ½{x+8}

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

$x = 40$.

Question: 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

Answer:D

Explanation:

Given that:

1. The difference of age b/w R and Q = The difference of age b/w Q and T.

2. Sum of age of R and T is 50 i.e. (R + T) = 50.

R - Q = Q - T

(R + T) = 2Q

Now given that, (R + T) = 50

So, 50 = 2Q and therefore Q = 25.

Here we know the value(age) of Q (25), but we don't know the age of R.Therefore, (R-Q) cannot be determined.

Question: 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

Answer:B

Explanation:

Let the ages of father and son 10 years ago be $3x$ and x years respectively.

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

$3x + 20 = 2x + 40$

$x = 20$.

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

THANK YOU