PROBLEMS ON AGES

1. The ratio of the Mother's age to her daughter's age is 9 : 5. The product of their ages is 1125. The ratio of their ages after five years will be :

A. 1 : 3
B. 2 : 3
C. 3 : 4
D. 5 : 3
E. None of these

2. The ratio of the present ages of two Friends is 2 : 3 and six years back, the ratio was 1 : 3. What will be the ratio of their ages after 4 years?

A. 1 : 3
B. 3 : 4
C. 2 : 3
D. 3 : 5
E. None of these

3. Five years ago the ratio of the ages of Omkar and Nitin was 8 : 7. Three years hence, the ratio of their ages will be 12 : 11. what is Nitin's age at present?

A. 12 years
B. 15 years
C. 8.5 years
D. 19 years
E. None of these

4. The ratio between the present ages of A and B is 3 : 5 respectively. If the difference between B's present age and A's after 7 year is 3 what is the total of A's and B's present age?

A. 10 years
B. 30 years
C. 40 years
D. 45 years
E. None of these

5. Mohit is younger than Sohit by 4 years. If their ages are in the respective ratio of 3 : 5, How old is Mohit?

A. 6 years
B. 12 years

C. 13 years
D. 16 years
E. None of these

6. Meetali and Neeraj got married 30 years ago. Meetali is 4 years younger than Neeraj. When they got married the difference between 2 times of the Meetali's age and 1.5 times of the Neeraj's age was 5 years. Find the present age of Meetali and Neeraj.

A. 42, 46
B. 48, 52
C. 55, 59
D. 60, 64
E. None of these

7. Mohan was 7 years younger to Raman 5 years back. After 5 years, the ratio of ages of Mohan and Jill will be 3 : 4. The sum of ages of Mohan and Jill is 53 years. Find the current age of Raman.(in years)

A. 22
B. 24
C. 29
D. 34
E. None of these

8. Monika, Neha and Bharti are three sister. Monika and Neha are twins. The ratio of sum of the ages of Monika and Neha is same as that of Bharti alone. Three years earlier the ratio of age of Monika and Bharti was 5 : 11. What will be the age of Bharti 7 years hence?

A. 20 years
B. 10 years
C. 25 years
D. 30 years
E. None of these

9. The average age of a group of 15 employees is 24 years. If 5 more employees join the group, the average age increases by 2 years. Find the average age of the new employees.

A. 35
B. 30
C. 24
D. 32
E. None of these

10. 2 years ago, John's age was 4 times that of his son. After 1 year, his age will be 3 times that of his son. What is the difference between their present ages?

A. 16 years
B. 18 years
C. 24 years
D. 20 years
E. None of these

11. In a family there are two children Navya and Reet. The ratio between the present age of Navya and Reet is 5 : 6. After 8 years the ratio of their ages will be 7 : 8. Find their total age of Navya and Reet after 10 years.

A. 56
B. 66
C. 64
D. 45
E. None of these

12. Two years ago, the age of Rajan was 4 times that of his son. After 5 years, the ratio of ages of Rajan to his son will be 5 : 2. What is the present age of his son?

A. 8 years
B. 14 years
C. 7 years
D. 9 years
E. None of these

13. Diksha, Prachi and Deepika are three sister. Diksha and Prachi are twins. The of sum of the ages of Diksha and Prachi is same as that of Deepika alone. Four years earlier the ratio of age of Diksha and Deepika was 3 : 7. What will be the age of Deeepika 4 years hence?

A. 36 years
B. 10 years
C. 8 years
D. 12 years
E. None of these

14. The average age of brother and sister is 26 years. After 4 years the ratio of their ages will be 7 : 8. Find the brother's present age.

A. 28 years
B. 22 years

C. 24 years
D. 26 years
E. 30 years

15. Meeta is 4 years older than Geeta and Seeta is 6 years younger than Meeta. If the average age of Geeta and Seeta is 24 years find the sum of the age of Seeta, Geeta and Meeta.

A. 77 years
B. 75 years
C. 74 years
D. 79 years
E. None of these

16. A is 8 years older to B but 11 years younger to C. When the average age of all of them was 26 years, D was born. When D became 16 years old, C died, then what was the average age of the remaining three persons?

A. 30 years 4 months
B. 30 years
C. 29 years 8 months
D. 32 years
E. None of these

17. The average age of a family of 5 members was 32 years. 3 years later, the oldest member of the family died at the age of 60. On the same day, a child was born in the family. What would be the average age of the family 20 years after the death of the oldest member?

A. 52 years
B. 43 years
C. 47 years
D. 50 years
E. 55 years

18. There are three Pathan brothers Yusuf Pathan, Irfan Pathan and Saddam Pathan. The sum of the squares of the their ages (in completed years) is 325. If the product of their ages does not exceed 1000, find the age (in years) of the youngest brother.

A. 6
B. 7
C. 8
D. 9
E. None of these

19. The ratio of the age of 3 family members is 9 : 7 : 1 in 2001. In 2005 a new baby was born in the family and in 2009 the average becomes 24. Find the age of the oldest person in 2001.

A. 24 years
B. 45 years
C. 27 years
D. 30 years
E. 36 years

20. Present average of age of A and B is 6x – 15 years. Present average age of A, B and C is 4x + 6 years. If present age of B is 25% less than the present age of C and 20% more than the present age of A, then find the present age of A.

A. 30 years
B. 33 years
C. 36 years
D. 39 years
E. Can't be determined

21. There are three members in a family, Karan, his son Ajay and Ajay's wife Kajal. At the time of Ajay's wedding, the average of the age of these three was 38 yrs. After some time Karan died and at the same time, Ajay's daughter Kalpana was born. The average age of Ajay, Kajal and Kalpana 10 years after their wedding is 25. If the age of Karan at the time of wedding of Ajay was 62yrs, at what age did he die?

A. 71 years
B. 67 years
C. 69 years
D. 73 years
E. None of these

22. Seven years later from now A will be as old as B was 4 years ago. C was born 2 years ago. The average age of A, B and C 10 years later will be 33yrs. What is the present age of A?

A. 30 years
B. 28 years
C. 31 years
D. 29 years
E. None of these

23. 8 years ago, the ratio of A's age and B's age was 13 : 5. Six years hence, the ratio of A's age and B's age would be 33 : 17. At present, what is the ratio of the sum of their ages to the difference of their ages?

A. 15 : 7
B. 11 : 4
C. 5 : 3
D. 4 : 1
E. None of these

24. The average age of Zaheer and Nehra is 50% of the average age of Bala Ji, Srisanth and Harbhajan. The average age of Bala Ji and Srisanth is 35 years. If Harbhajan replaces Bala Ji, the average age becomes 32 years and if Harbhajan replaces Srisanth, then the average age becomes 38 years. Find the average age of all the five players.

A. 27 years
B. 28 years
C. 35 years
D. 39 years
E. None of these

25. The ratio of the age of Sonny and Aarav is 4 : 5. Punit is 5 years elder than Aarav and 8 years elder than Sonny. Find the sum of the ages of all the 3 people after 5 years from now?

A. 60 years
B. 62 years
C. 58 years
D. 65 years
E. 64 years

Answers:

1. D

Solution:

Let the present ages of Mother and daughter be 9x and 5x respectively.

$9x \times 5x = 1125$

$\Rightarrow 45x^2 = 1125$

$\Rightarrow x^2 = 25$

$\Rightarrow x = 5.$

Required ratio = (9x + 5) : (5x + 5) ⇒ 50 : 30 ⇒ 5 : 3

2. B

Solution: Let the present ages of the two Friends be 2x and 3x respectively.

Then, (2x – 6) / (3x – 6)= 1/3

⇒ 6x – 18 = 3x – 6 ⇒ 3x = 12 ⇒ x = 4.

So, required ratio = (2x + 4) : (3x + 4) ⇒ 12 : 16 ⇒ 3 : 4.

3. D

Solution: Let the age of Omkar and Nitin five years ago 8x and 7x respectively.

Omkar's present age = (8x + 5)

Nitin's present age = (7x + 5)

Now, as per the equ.

Then, (8x + 5) + 3 / (7x + 5) + 3 = 12/11

⇒ (8x + 8)/(7x + 8) = 12/11

On cross multiplication, we get

⇒ 88x + 88 = 84x + 96

⇒ 4x = 8 ⇒ x = 2.

∴ Nitin's present age = (7x + 5) = (7 × 2 + 5) = 19 years.

4. C

Solution: Let the present ages of A and B be 3x and 5x years respectively.

Then, 5x – (3x + 7) = 3 ⇒ 2x = 10. ⇒ x = 5.

So. Required Sum = 3x + 5x = 8x = 8 × 5 = 40 years.

5. A

Solution: Let Sohit's age be x years. then, Mohit's age = (x – 4) years.

So, (x – 4)/x = 3/5

⇒ 5x – 20 = 3x

⇒ 2x = 20 ⇒ x = 10

Hence, Mohit's age = (x – 4) = 6 years.

6. E

Solution: Before 30 years, Neeraj's age = x years, Meetali's age = x – 4 years

According to the question,

$2(x – 4) – 1.5x = 5$

$2x – 8 – 1.5x = 5$

$0.5x = 5 + 8$

$0.5x = 13$

$x = 26$

Meetali's present age = 26 – 4 +30 = 52

Neeraj' present age = 26 + 30 = 56

7. C

Solution: Let the current age of Mohan be T years.

The sum of ages of Mohan and Jill is 53 years.

⇒ Age of Jill = (53 – T) years

After 5 years, the ratio of ages of Mohan and Jill will be 3 : 4.

$⇒ (T + 5)/(53 – T + 5) = 3/4$

$⇒ 4T + 20 = 174 – 3T$

$⇒ T = 154/7 = 22$

So, Mohan is 22 years old.

Mohan was 7 years younger to Raman 5 years back. Even now, Mohan would be 7 years younger to Raman.

∴ Current age of Raman = 29 years.

8. E

Solution: Since Monika and Neha are twins so their ages be same. Let their ages be x and and age of Bharti be y,

then,

x + x = y ...(i)

and (x – 3)/(y – 3) = 5/11

⇒ 11x – 33 = 5y – 15

⇒ 11x – 5y = 18

Now, from equation (i) putting y in terms of x, we get

11x – 10x = 18

⇒ x = 18

So, the age of Bharti 7 years hence will be 18 + 18 + 7 = 43 years.

9. D

Solution: Average age increased by 2 years i.e. 24 + 2 = 26 years

Total increment in Group's age (15 + 5) × 2 = 40 years

Now, average age of new employees = 24 + 40/5 = 32 years

10. B

Solution: Let the present ages of John and his son be x and y years respectively.

The first situation can be written as:

(x – 2) = 4(y – 2) .....(i)

And the second situation can be written as:

(x + 1) = 3(y + 1) .....(ii)

Solving above equations we get

x = 26 and y = 8

Therefore the difference between their present ages = 26 – 8 = 18 years

11. C

Solution: Let the present age of Navya = 5x, Reet = 6x

After 8 years,

5x + 8 : 6x + 8 = 7 : 8

(5x + 8) 8 : (6x + 8) 7

40x + 64 = 42x + 56

64 – 56 = 42x – 40x

8 = 2x

x = 4

Present age of Navya = 20, Reet = 24

After 10 years the total of their ages = 20 + 10 + 24 + 10 = 64

12. D

Solution: Let age of Rajan be x and that of his son be y

So as per the question:

(x – 2) : (y – 2) = 4 : 1 or 4 (y – 2)= x – 2 (this is the first equation)

(x + 5) : (y + 5) = 5/2 or 5(y + 5)= 2(x + 5) (this is the second equation)

Solving both of them we get x = 30 and y = 9

So present age of the son is 9 years

13. A

Solution: Since Diksha and Prachi are twins so their ages be same. Let their ages be x and age of Deepika be y,

then, x + x = y ...(i)

and (x – 4)/(y – 4) = 3/7

⇒ 7x – 3y = 16

Now, from equation (i) putting y in terms of x, we get

7x – 6x = 16

⇒ x = 16

So, the age of Deepika 4 year hence will be 2x + 4 = 32 + 4 = 36 years

14. C

Solution: Total age of brother and sister = 26 × 2 = 52

After 4 years the total of their age

52 + 4 + 4 = 7x + 8x

15x = 60

x = 4

After 4 years brother's age = 28 years

sister's age = 32 yeras

Brother's present age = 28 – 4 = 24 years

15. A

Solution: Age of Geeta = x year, Age of Meeta = x + 4, Age of Seeta = x + 4 – 6 = x – 2

Average age of Geeta and Seeta = (x + x – 2)/ 2

24 × 2 = 2x – 2

48 + 2 = 2x

50 = 2x

x = 25 years

Age of Geeta = 25 years, Age of Meeta = 29 years, Age of Seeta = 23 years

Sum = 25 + 29 + 23

= 77 years

16. B

Solution: Let the age of B = b years

A's age = (b + 8) years

C's age = (b + 8 + 11) years

When the average age of all was 26 years

b + b + 8 + b + 8 + 11 = 78

3b + 27 = 78

3b = 51

b = 17

When D = 16 years

B = (16 + 17) = 33 years

A = (17 + 8 + 16) = 41 years

The average age of remaining three persons = (16 + 33 + 41)/3 = 30 years

17. B

Solution: The average age of the family of 5 was 32 years. Hence, the sum of the ages of these 5 people must have been 32 × 5 = 160.

3 years later, each person will grow older by 3 years. Hence, the sum of the ages must be 160 + 15 = 175.

Now, the eldest member has died. So the sum of the ages of all the members of the family will become 175 – 60 = 115

20 years from now, each member will grow older by 20 years. Hence, the sum of the ages of 5 people will be 115 + 20 × 5 = 215

Hence, the average age of the family will be 215/5 = 43 years

18. A

Solution: Let the ages of the 3 brothers in completed years be x, y, z.

$x^2 + y^2 + z^2 = 325$ .....(i)

Clearly, the three numbers have to be less than 18 since the square of 18 itself is 324.

By trial, we see that $325 = 15^2 + 8^2 + 6^2$ or $12^2 + 10^2 + 9^2$

As the product of the ages is less than 1000, the ages have to be 6, 8, 15

The youngest is 6.

19. E

Solution: According to the question,

9x + 7x + x + 3 × 8 + 4 = 24 × 4

17x + 24 + 4 = 96

17x = 96 – 28

17x = 68

x = 4

Age of the oldest person = 9 × 4 = 36 years

20. A

Solution: Sum of the present age of A and B = 2 × (6x – 15) = 12x – 30 years

Sum of the present age of A, B and C = 3 × (4x + 6) = 12x + 18 years

So, the present age of C = 12x + 18 – 12x + 30 = 48 years

Present age of B = 48 × 0.75 = 36 years

Present age of A = 36/1.2 = 30 years

21. C

Solution:

Member	Wedding	Karan died & kalpana born	10yrs after wedding
Karan	62		
Ajay	y		y +10
Kajal	z		z +10
Kalpana			a
Average Age	38		25

At the time of wedding, average age = 38

So, 62 + y + z/3 = 38

62 + y + z = 114

y + z = 52

10rys after wedding, average age = 25

(y + 10 + z + 10 + a)/3 = 25

y + z + a + 20 = 75

y + z + a = 55

a = 55 – 52 = 3

So, the age of daughter 10 yrs after wedding is 3 yrs, which means she was born 7yrs after wedding.

So, karan died 7 yrs after wedding at the age of = (62 + 7) = 69yrs

22. B

Solution: Let age of A 7 years later be k so age of B 4 years ago was k

C was born 2 years ago so age of C 10 yrs later will be 12 years

	4 years ago	Present	7 years later	10 years later
A	k – 11	k – 7	k	K + 3
B	k	K + 4	K + 11	K + 14
C		2	9	12

Average age of all three 10 yrs later = 33

K + 3 + k + 14 + 12/3 = 33

2k + 29 = 99 → 2k = 70 → k = 35

Present age of A = k – 7 = 35 – 7 = 28 years

23. B

Solution: Let 8 years ago A's age = 13x years and B's age = 5x years

6 years hence A's age = 13x + 8 + 6 = 13x + 14 years and B's age = 5x + 8 + 6 = 5x + 14 years

(13x + 14)/(5x + 14) = 33/17

By solving, x = 4

At present, A's age = 13x + 8 = 52 + 8 = 60 years and B's age = 5x + 8 = 28 years

The required ratio = (60 + 28) : (60 – 28) = 88 : 32 = 11 : 4

24. B

Solution: Bala Ji's age + Srisanth's age = 35 × 2 = 70

Harbhajan's age + Srisanth's age = 32 × 2 = 64

Bala Ji's age + Harbhajan's age = 38 × 2 = 76

On adding all,

2(Bala Ji's + Harbhajan's + Srisanth's) age = 70 + 64 + 76

(Bala Ji + Harbhajan + Srisanth)'s age = 210/2 = 105

Average of all the three = 105/3 = 35

Average of Zaheer and Nehra = 35/2 = 17.5

Reqd. answer = (35 × 3 + 17.5 × 2)/5 = 28

25. B

Solution: Let the age of Sonny, Aarav and Punit be s, a and p respectively.

The ratio of the age of Sonny and Aarav is given so, s = 4x and a = 5x

p = 5x + 5

p = 4x + 8

5x + 5 = 4x + 8

x = 3

So the present age of Sonny, Aarav is 12 and 15 years respectively.

The age of Punit = 5(3) + 5 = 20 years

After 5 years,

Sum = (12 + 5) + (15 + 5) + (20 + 5) = 62 years