

Bank Probationary officer

Quantitative Aptitude

PROBLEMS ON AGE

Solved Examples

1. A father was 4 times as old as his son 8 years ago. Eight years hence, father will be twice as old as his son. Find their present ages.

Ans: Let son's age 8 years ago be x years.

Thus, father's age at that time = $4x$ years

After 8 years, son's age

$$= (x-8) + 8 = (x-16) \text{ years}$$

After 8 years, father's age

$$= (4x-8)+8 = (4x-16) \text{ years}$$

$$\therefore 2(x-16) = 4x + 16 \text{ or } x=8$$

\therefore The present age of the son = $x-8 = 16$ years

\therefore The present age of the father

$$= 4x-8 = 32+8= 40 \text{ years}$$

2. A is twice as old as B was two years ago. If the difference in their ages be 2 years, find A's age.

Ans: Let B's age 2 years ago be x years

$$\therefore \text{A's present age} = 2x \text{ years}$$

$$\text{Also } 2x - (x-2) = 2 \text{ or } x=4$$

$$\therefore \text{A's age} = 2x = 8 \text{ years}$$

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

Ans: Let the present ages of father and son be x and y years respectively.

$$\text{Then } (x-10) = 3(y-10) \text{ or}$$

$$3y-x = 20 \text{ ----- (1)}$$

$$\text{and } (x+10) = 2(y+10) \text{ or}$$

$$x-2y = 10 \text{ ----- (2)}$$

$$(1) + (2) \Rightarrow y = 30$$

Substituting $y = 30$ in equation (1) we get $x = 70$

$$\text{Ratio of their ages} = 70 : 30 \text{ or } 7:3$$

4. Ratio of Ashok's age to Pradeep's age is equal to 4:3. Ashok will be 26 years old after 6 years. How old is Pradeep now?

Ans: Ashok's present age = $(26-6)$

$$= 20 \text{ years}$$

$$\text{Pradeep's present age} = 20 \times \frac{3}{4}$$

$$= 15 \text{ years}$$

5. The ratio of the ages of father and son at present is 6:1. After 5 years the ratio will become 7:2. The present age of the son is:

Ans: Let their present ages be $6x$ and x years respectively.

$$\text{Then } \frac{6x+5}{x+5} = \frac{7}{2}$$

$$= 2(6x+5) = 7(x+5) \Rightarrow x=5$$

$$\text{Present age of the son} = 5 \text{ years.}$$

6. Three years ago the average age of A and B was 18 years. With C joining them now, the average becomes 22 years. How old is C now?

Ans: $(A+B)$'s total present age

$$= (2 \times 18 + 3 + 3) = 42 \text{ years}$$

$(A+B+C)$'s total present age

$$= 22 \times 3 = 66 \text{ years}$$

$$\text{C's age} = 66 - 42 = 24 \text{ years}$$

PRACTICE TEST

1. A father is twice as old as his son. 20 years ago, the age of the father was 12 times the age of the son. The present age of the son is
 - 1) 44 years
 - 2) 22 years
 - 3) 40 years
 - 4) 20 years
2. The respective ages of a father and his son are 41 and 16 years. In how many years will the father be twice as old as his son?
 - 1) 19 years
 - 2) 9 years
 - 3) 15 years
 - 4) 10 years
3. The ratio of ages of Mohan and Sohan is 4:3. The sum of their ages is 42 years. The age of Mohan is
 - 1) 24 years
 - 2) 18 years
 - 3) 32 years
 - 4) 30 years.
4. The ratio of ages of Rani and Vinita is 3:5. The difference in their ages is 12 years. Then the age of Vinita is
 - 1) 20 years
 - 2) 15 years
 - 3) 18 years
 - 4) 30 years
5. Two years ago, Vinod was four times as old as Indhu. 8 years hence, Vinod's age will exceed Indhu's age by 12 years. The ratio of the present ages of Vinod and Indhu
 - 1) 5:1
 - 2) 4:1
 - 3) 3:1
 - 4) 2:1
6. The ages of A and B are in the ratio 3:5. After 9 years the ratio of their ages will be 3:4. The present age of B is
 - 1) 9 years
 - 2) 15 years
 - 3) 20 years
 - 4) 16 years
7. A's mother was four times as old as A ten years ago. After 10 years she will be twice as old as A. Then, A's present age is
 - 1) 30 years
 - 2) 25 years
 - 3) 20 years
 - 4) 15 years
8. A father's age is three times the sum of the ages of his two children, but 20 years hence his age will be equal to sum of their ages. Then the father's age is -
 - 1) 30 years
 - 2) 40 years
 - 3) 35 years
 - 4) 45 years
9. The ratio of the father's age to the son's age is 4:1. The product of their ages is 196. The ratio of their ages after 5 years will be:
 - 1) 3:1
 - 2) 10:3
 - 3) 11:4
 - 4) 14:5
10. In 10 years, A will be twice as old as B was 10 years ago. If A is now 9 years older than B, find the present age of B.
 - 1) 39
 - 2) 27
 - 3) 45
 - 4) 26
11. A is as much younger than B as he is older than C. If the sum of B's and C's ages is 40 years, find the age of A.
 - 1) 40 years
 - 2) 10 years
 - 3) 25 years
 - 4) 20 years
12. The ages of Ram and Mohan differs by 16 years. Six years ago, Mohan's age was thrice as that of Ram's. Then Ram's present age is
 - 1) 15 years
 - 2) 20 years
 - 3) 14 years
 - 4) 30 years
13. A father is 4 times as old as his son; in 20 years he will be only twice as old as his son. Then the respective ages of father and son are
 - 1) 40, 10 years
 - 2) 80, 20 years
 - 3) 60, 15 years
 - 4) 48, 12 years
14. The difference between the ages of two persons is 8 years. 15 years ago, the elder one was twice as old as the younger one. Then the present age of the elder person is
 - 1) 23 years
 - 2) 31 years
 - 3) 34 years
 - 4) 40 years

ANSWERS TO PRACTICE TEST

1. (2) 2. (2) 3. (1) 4. (4) 5. (3) 6. (2) 7. (3) 8.(1)
9. (3) 10. (1) 11. (4) 12. (3) 13. (1) 14. (2)