

51- The product of the ages of Ankit and Nikita is 240. If twice the age of Nikita is more than Ankit's age by 4 years, what is Nikita's age?

- **A.**22
- **B.**12
- **C.**10
- **D.**8
- **E.**None of these

Answer & Explanation

Answer - **B** (12)

Explanation - Let Ankit's age be x years. Then, Nikita's age = $240/x$ years.

$$2 \times (240/x) - x = 4$$

$$480 - x^2 = 4x$$

$$x^2 + 4x - 480 = 0$$

$$(x+24)(x-20) = 0$$

$$x = 20.$$

Hence, Nikita's age = $(240 - 20) \text{ years} = 12 \text{ years}$.

52- The present age of a father is 3 years more than three times the age of his son. Three years hence, father's age will be 10 years more than twice the age of the son. Find the present age of the father?

- **A.**10 years
- **B.**30 years
- **C.**33 years
- **D.**35 years
- **E.**None of these

Answer & Explanation

Answer - **C** (33 years)

Explanation - Let the son's present age be x years.

Then, father's present age = $(3x + 3)$ years

$$(3x + 3 + 3) = 2(x + 3) + 10$$

$$3x + 6 = 2x + 16$$

$$x = 10.$$

Hence, father's present age = $(3x + 3) = ((3 \times 10) + 3)$ years = 33 years.

53- Rohit was 4 times as old as his son 8 years ago. After 8 years, Rohit will be twice as old as his son. What are their present ages?

- **A.** 16 years
- **B.** 24 years
- **C.** 28 years
- **D.** 40 years
- **E.** None of these

Answer & Explanation

Answer - **D** (40)

Explanation - Let son's age 8 years ago be x years. Then, Rohit's age 8 years ago = $4x$ years.

Son's age after 8 years = $(x + 8) + 8 = (x + 16)$ years.

Rohit's age after 8 years = $(4x + 8) + 8 = (4x + 16)$ years.

$$2(x + 16) = 4x + 16$$

$$2x = 16$$

$$x = 8.$$

Hence, son's present age = $(x + 8) = 16$ years.

Rohit's present age = $(4x + 8) = 40$ years.

54- One year ago, the ratio of Gaurav's and Sachin's age was 6: 7 respectively. Four years hence, this ratio would become 7: 8. How old is Sachin?

- **A.**35
- **B.**36
- **C.**37
- **D.**38
- **E.**None of these

Answer & Explanation

Answer - **B** (36)

Explanation - Let Gaurav's and Sachin's ages one year ago be $6x$ and $7x$ years respectively. Then, Gaurav's age

4 years hence = $(6x + 1) + 4 = (6x + 5)$ years.

Sachin's age 4 years hence = $(7x + 1) + 4 = (7x + 5)$ years.

$$6x+5 = 7$$

$$8(6x+5) = 7(7x + 5)$$

$$48x + 40 = 49x + 35$$

$$x = 5.$$

Hence, Sachin's present age = $(7x + 1) = 36$ years.

55- Abhay's age after six years will be three-seventh of his father's age. Ten years ago the ratio of their ages was 1 : 5. What is Abhay's father's age at present?

- **A.**42
- **B.**48
- **C.**50
- **D.**52
- **E.**None of these

Answer & Explanation

Answer - C (50)

Explanation - Let the ages of Abhay and his father 10 years ago be x and $5x$ years respectively. Then,

Abhay's age after 6 years = $(x + 10) + 6 = (x + 16)$ years.

Father's age after 6 years = $(5x + 10) + 6 = (5x + 16)$ years.

$$(x + 16) = 3(5x + 16)$$

$$7(x + 16) = 3(5x + 16)$$

$$7x + 112 = 15x + 48$$

$$8x = 64$$

$$x = 8.$$

Hence, Abhay's father's present age = $(5x + 10) = 50$ years