

→ Ages  
→ %  
→ Ratio  
→ Time & work  
→ Time & dist  
→ Set theory.  
→ Average

Rate



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Sahi Prep Hai Toh Life Set Hai

**Arithmetical  
Reasoning**

Q1

Maths

Q. There are fourteen teams playing in a tournament. If every team plays one match with every other team, how many matches will be played in the tournament?

- A. 66
- B. 78
- ☒ C. 91
- D. 101

13

12

11

10

9

8

7

6

5

4

3

2

1

$$1 + 2 + \dots + n = \frac{n(n+1)}{2} \checkmark$$

13

$$= \frac{13 \times 14}{2} = 91$$

$$1 + 2 + \dots + 13$$

Ans. C

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Q. Two years ago a man was six times as old as his son. In 18 years, he will be twice as old as his son. What are their present ages of the man and his son?

- A. 34 and 9 years
- ✓ B. 32 and 7 years
- C. 32 and 13 years
- D. 34 and 7 years

$$30 \div 6 = 5$$

Handwritten solution showing the relationship between the man's and son's ages at different times:

Let the man's age be  $P$  and the son's age be  $S$ .

Two years ago:  $P - 2 \text{ yr}$  and  $S - 2 \text{ yr}$ . The ratio was  $6:1$ . (Circled 30 and 5)

Present:  $P$  and  $S$ . The ratio is  $6:1$ . (Circled 30 and 5)

In 18 years:  $P + 18$  and  $S + 18$ . The ratio will be  $2:1$ . (Circled 10 and 5)

The difference in age is constant at 25 years. (Circled 25)

Using the ratio  $6:1$  and the difference of 25 years, the present ages are found to be 32 and 7 years.

Using the ratio  $2:1$  and the difference of 25 years, the present ages are found to be 32 and 7 years.

4 Unit = 20 yr

1 = 5 yr

1 x 5

**Ans. B**

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Today 13/1/28/29

Q. How many days are there in p months p weeks p days?

A.  $30p * p$

B. 30

C.  $120p$

☒ D.  $38p$

$$30p + 7p + p = 38p$$

Ans. D

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$$\text{Total} = 1 + 2 + 3$$

1:2

Q. In the month of June, the number of girls in a class was half of the number of boys. In July, five more girls took admission, where as five boys left the school. Now, the number of boys and girls is equal in the class. How many students in total were there in the class in June?

~~A. 30~~

C. 35

B. 25

D. 20

June

$$\begin{array}{r} 6 \\ 10 \\ +5 \\ \hline 15 \end{array} \quad \begin{array}{r} B \\ 20 \\ -5 \\ \hline 15 \end{array} \quad + \quad 15 = \underline{\underline{30}}$$



Ans. A

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$$45 - 5 = \underline{40}$$

$$54 - 40 = \underline{14}$$

Q. Among 45 students of a class, 26 attend Yoga class, 28 attend Gymnastic class and 5 students attend neither Yoga nor Gymnastic class. How many students attend both Yoga and Gymnastic classes?

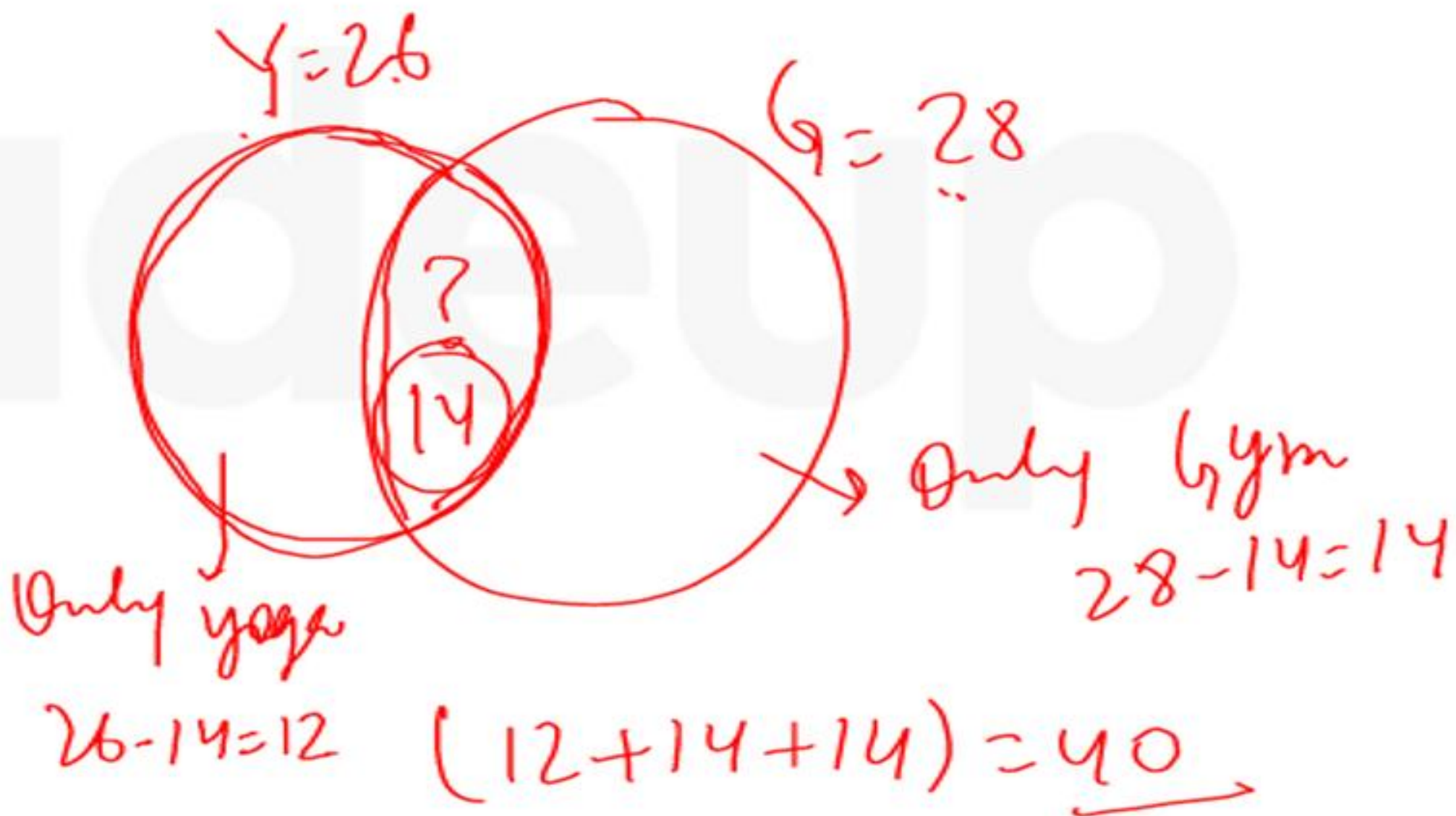
A. 16

☒ B. 14

C. 12

D. 10

$$\begin{array}{r} 26 \\ + 28 \\ \hline 54 \end{array}$$



**Ans. B**

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11 Q. Lalita is 4 years older than Sarita but 3 year younger than Babita. Babita is 2 years older than Ankita. Age of Ankita is 12 years. How old Sarita is?

- A. 7  
B. 12  
C. 8  
D. 11

$$B = A + 2 = 12 + 2 = 14$$

$$L = B - 3 = 14 - 3 = 11$$

$$S = L - 4 = 11 - 4 = 7$$



Ans. A

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Q. Shruti brought one Rakhi from market A and two rakhi from market B cost Rs.56 but when two rakhi are brought from market A and one rakhi are brought from market B it cost Rs.82. Find the cost of rakhi brought from market A?

A. ₹35

B. ₹32

✓ C. ₹36

D. ₹33

$$2A + 10 = 82$$

$$A = \frac{72}{2} = 36$$

$$A + 2B = 56 \times 2$$

$$2A + B = 82$$

$$2A + 4B = 112$$


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$$-3B = -30$$

$$\boxed{B = 10}$$

Ans. C

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100 = 20%  $\rightarrow$  1 child = Remain =  $100 - 20 = 80$  | gradeup

Q. A recent survey of married couples in Indian metro cities showed that 20% of the couples have only one child, 45% of the remaining couples have two children, and the rest of the couples have three or more children. What is the percentage of couples with three or more children?

A. 35%

☒ B. 44%

C. 42%

D. 56%

$45\% \text{ of } 80 = \frac{45}{100} \times 80 = 36 \rightarrow 2 \text{ child}$

$100 - (20 + 36) = 44\% \rightarrow 3 \text{ or more child.}$



**Ans. B**

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Q. Three persons A, B and C have different amounts of rupees with them. If A takes 6 from C, A will have equal amount as B has. A and B together have total `74. How many rupees does B have?

A. 34

B. 44

☒ C. 40

D. 30

$$\begin{array}{r} +6 \\ \hline 80 \\ \hline 2 = 40 \end{array}$$

Ans. C

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Q. Rahul's age is three times the age of Sumit. If Rahul is 15 years old presently, determine the age (in years) of Sumit after 12 years.

A. 16

B. 15

C. 10

☒ D. 17

R: S

$$\begin{array}{r} \textcircled{3}: 1 \rightarrow 5\text{yr} \\ + 12 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 3 \rightarrow 15\text{yr} \\ \hline \textcircled{1 \rightarrow 5\text{yr}} \end{array}$$



Ans. D

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Q. The sum of the square of three numbers is 336 and the ratio of the first and the second as also of the second and the third is 1 : 2. Then find the difference of third and first number?

A. 10

B. 14

C. 12

D. 16

①  
1st      2nd      3rd

1 : 2 : 4

↓                      ↓

4                      16

$$1^2 + 2^2 + 4^2 = 336$$

$$21 \rightarrow 336$$

$$1^2 \rightarrow \sqrt{16} = 4$$

$$16 - 4 = 12$$

Ans. C

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Q. Find the present age of Suman, if after seven years his age will be five times his age three years back?

- A.  $7\frac{1}{2}$  years    B.  $6\frac{1}{2}$  years    C.  $9\frac{1}{2}$  years    ☒ D.  $5\frac{1}{2}$  years

$$3y + 3 = 5y - 7$$

$$5 : 1$$

$$4$$

$$10 \text{ yr}$$

$$2.5 \text{ yr}$$

$$\text{Present age of Suman} = 2.5 + 3 = 5.5$$



Ans. D

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Q. In a metro city 12.5% people read Hindi newspaper, 33% people read English newspaper and rest of citizens read regional language newspaper. What is the percentage of citizens read regional language newspaper?

A. 55.5

B. 54.5

C. 56.5

D. 57.5

$$100 - (12.5 + 33) \\ = 100 - 45.5 = \underline{54.5}$$

**Ans. B**

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$$\underline{F - 2S = 12}$$

Q. The difference between a father's age and the sum of her two son's age is 12. The average age of two sons is 34. What is the age of father?

A. 84

~~B. 80~~

C. 78

D. 82

$$\underline{S + S = 34}$$

$$\underline{\text{Age of 2s} = 68}$$

$$F - 68 = 12$$

$$\underline{F = 80}$$



**Ans. B**

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Q. Two numbers are in the ratio 3 : 2. If 6 is subtracted from each number, then ratio becomes 12 : 7. What is the value of smaller number?

A. 25

B. 30

C. 20

D. 18

$2 \times 10$

$$\frac{3x-6}{2x-6} = \frac{12}{7}$$

$$\Rightarrow 21x - 42 = 24x - 72$$

$$\Rightarrow -3x = -72 + 42$$

$$x = 10$$

Ans. C

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Q. 90 persons can complete a piece of work in 50 days. How many days required for 150 men to complete the twice work?

A. 60 days

B. 35 days

C. 40 days

D. 50 days

$$\frac{M_1 D_1 H_1}{W_1} = \frac{M_2 D_2 H_2}{W_2}$$
$$\frac{90 \times 50}{1} = \frac{150 \times D_2}{2}$$
$$\Rightarrow D_2 = \frac{90 \times 50 \times 2}{150} = 60$$

Ans. A

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Q. Find the selling price of an item whose marked price is Rs 405 and a discount of 20% is given on it.

A. Rs. 486

B. Rs. 320

C. Rs. 324

D. Rs. 328

$$\frac{20}{100} \times 405 = 81$$

$$\begin{array}{r} 405 \\ - 81 \\ \hline 324 \end{array}$$



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Practise  
topic-wise quizzes

Keep attending  
live classes

