

Problem on Ages	
Q.No	Answer
1	B
2	<p><b>Answer:</b> Option D</p> <p><b>Explanation:</b>  Let C's age be <math>x</math> years. Then, B's age = <math>2x</math> years. A's age = <math>(2x + 2)</math> years.  <math>\therefore (2x + 2) + 2x + x = 27</math>  <math>\Rightarrow 5x = 25</math>  <math>\Rightarrow x = 5</math>.  Hence, B's age = <math>2x = 10</math> years.</p>
3	<p>Correct Option: B</p> <p>Let the present ages of the two Friends be <math>2x</math> and <math>3x</math> respectively.</p> <p>Then, <math>\frac{2x - 6}{3x - 6} = \frac{1}{3}</math></p> <p><math>\Rightarrow 6x - 18 = 3x - 6 \Rightarrow 3x = 12 \Rightarrow x = 4</math>.  So, required ratio = <math>(2x + 4) : (3x + 4) \Rightarrow 12 : 16 \Rightarrow 3 : 4</math>.  Hence, option B is correct.</p>
4	B
5	<p><b>Answer:</b> Option A</p> <p><b>Explanation:</b>  Let the present ages of Sameer and Anand be <math>5x</math> years and <math>4x</math> years respectively.</p> <p>Then, <math>\frac{5x + 3}{4x + 3} = \frac{11}{9}</math></p> <p><math>\Rightarrow 9(5x + 3) = 11(4x + 3)</math>  <math>\Rightarrow 45x + 27 = 44x + 33</math>  <math>\Rightarrow 45x - 44x = 33 - 27</math>  <math>\Rightarrow x = 6</math>.  <math>\therefore</math> Anand's present age = <math>4x = 24</math> years</p>
6	A
7	E
8	<p>Correct Option: C</p> <p>Let the ages of Ankit, Narendra and Satendra 5 years ago be <math>2x</math>, <math>3x</math> and <math>4x</math> years respectively.  So, total of their present ages will be,  <math>(2x + 5) + (3x + 5) + (4x + 5) = 96</math>  <math>9x + 15 = 96</math>  <math>9x = 81</math>  <math>x = 9</math>.  So, the present age of Satendra = <math>4x + 5 = 4 \times 9 + 5 = 41</math> years.  Hence, option C is correct.</p>
9	<p>Correct Option: D</p> <p>Let the age of Omkar and Nitin five years ago <math>8x</math> and <math>7x</math> respectively.  Omkar's present age = <math>(8x + 5)</math>  Nitin's present age = <math>(7x + 5)</math>  Now, as per the equ.</p> <p>Then, <math>\frac{(8x + 5) + 3}{(7x + 5) + 3} = \frac{12}{11} \Rightarrow \frac{(8x + 8)}{(7x + 8)} = \frac{12}{11}</math></p> <p>On cross multiplication, we get  <math>\Rightarrow 88x + 88 = 84x + 96</math>  <math>\Rightarrow 4x = 8 \Rightarrow x = 2</math>.  <math>\therefore</math> Nitin's present age = <math>(7x + 5) = (7 \times 2 + 5) = 19</math> years.  Hence, option D is correct.</p>
10	D
11	B
12	<p>Correct Option: C</p> <p>Let the current age of Mohan be <math>T</math> years.  The sum of ages of Mohan and Jill is 53 years.</p>

	<p><math>\Rightarrow</math> Age of Jill = <math>(53 - T)</math> years After 5 years, the ratio of ages of Mohan and Jill will be 3 : 4.</p> $\Rightarrow \frac{T + 5}{53 - T + 5} = \frac{3}{4}$ $\Rightarrow 4T + 20 = 174 - 3T$ $\Rightarrow T = \frac{154}{7} = 22$ <p>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. <math>\therefore</math> Current age of Raman = 29 years. Hence, option (C) is correct.</p>
13	<p><b>Answer:</b> Option A <b>Explanation:</b> Let the ages of Kunal and Sagar 6 years ago be <math>6x</math> and <math>5x</math> years respectively. Then, <math>\frac{(6x + 6) + 4}{(5x + 6) + 4} = \frac{11}{10}</math> <math>\Rightarrow 10(6x + 10) = 11(5x + 10)</math> <math>\Rightarrow 5x = 10</math> <math>\Rightarrow x = 2</math>. <math>\therefore</math> Sagar's present age = <math>(5x + 6) = 16</math> years.</p>
14	<p><b>Answer:</b> Option C <b>Explanation:</b> Let the mother's present age be <math>x</math> years. Then, the person's present age = <math>\left(\frac{2}{5}x\right)</math> years. <math>\therefore \left(\frac{2}{5}x + 8\right) = \frac{1}{2}(x + 8)</math> <math>\Rightarrow 2(2x + 40) = 5(x + 8)</math> <math>\Rightarrow x = 40</math>.</p>
15	<p><b>Answer:</b> Option B <b>Explanation:</b> Let the ages of father and son 10 years ago be <math>3x</math> and <math>x</math> years respectively. Then, <math>(3x + 10) + 10 = 2[(x + 10) + 10]</math> <math>\Rightarrow 3x + 20 = 2x + 40</math> <math>\Rightarrow x = 20</math>. <math>\therefore</math> Required ratio = <math>(3x + 10) : (x + 10) = 70 : 30 = 7 : 3</math>.</p>
16	<p><b>Answer:</b> Option D <b>Explanation:</b> <b>Given that:</b> 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. <math>(R + T) = 50</math>. <b>Question: <math>R - Q = ?</math>.</b> <b>Explanation:</b> <math>R - Q = Q - T</math> <math>(R + T) = 2Q</math> Now given that, <math>(R + T) = 50</math> So, <math>50 = 2Q</math> and therefore <math>Q = 25</math>. Question is <math>(R - Q) = ?</math> Here we know the value(age) of Q (25), but we don't know the age of R. Therefore, <math>(R - Q)</math> cannot be determined.</p>
17	<p>Correct Option: D Let the age of Sneha = <math>x</math>, her cousin's age = <math>x - 8</math>, Cousin's mother age = <math>x - 8 + 24</math> Ratio between the ages of Sneha and her cousin's mother is 7 : 11</p>

	$x : x + 16 = 7 : 11$ $11 \times x = (x + 16) \times 7$ $11x = 7x + 112$ $4x = 112$ $x = 28$ Sneha's cousin age = $28 - 8 = 20$ After 3 years Sneha's cousin age = $20 + 3 = 23$ years Hence, option D is correct.
18	Correct Option: B Esha : her mother = $1 : 4$ Her mother : Her brother = $9 : 1$ sha : Her mother : Her brother = $9 : 36 : 4$ According to the question, $9x - 4x = 5$ $5x = 5$ $x = 1$ Esha mother age after 4 years = $36 \times 1 + 4 = 40$ years
19	Correct Option: E 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 = $26 + 30 = 56$ Hence, option E is correct.
20	<b>Answer : B (60)</b> Explanation – Let Anuj's age be $X$ Gopal is 2 years younger than Mohan, so Gopal is 3 years (i.e $5 - 2 = 3$ ) If Arun had born 6 years before, his age would had been $X - 6$ . As per the question, $X - 6$ should be 18 times as that of Gokul's age. i.e. $(X - 6) / 18 = 3$ $X - 6 = 3 \times 18$ $x = 60$
21	<b>Answer – B (2)</b> Explanation – Let Monit's present age be $X$ years. Then, father's present age = $(X + 3X)$ years = $4X$ years. $(4X + 8) = 5/2 \times (X + 8)$ $8X + 16 = 5X + 40$ $3X = 24$ so, $X = 8$ Hence, required ratio = $(4X + 16) / (X + 16) = 48 / 24 = 2$
22	Correct Option: E 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 = $20 + 10 + 24 + 10 = 64$
23	Correct Option: E Since Monika and Neha are twins so their ages be same. Let their ages be $x$ and and age of Bharti be $y$ , then, $x + x = y$ <b>...(i)</b>

	<p>and <math>\frac{(x-3)}{(y-3)} = \frac{5}{11}</math></p> <p><math>\Rightarrow 11x - 33 = 5y - 15</math>  <math>\Rightarrow 11x - 5y = 18</math>  Now, from equation (i) putting y in terms of x, we get  <math>11x - 10x = 18</math>  <math>\Rightarrow x = 18</math>  So, the age of Bharti 7 years hence will be <math>18 + 18 + 7 = 43</math> years.  Hence, option E is correct.</p>
24	<p>Correct Option: C</p> <p>Let the present ages of Kidambi and Srikanth be x years and y years respectively.</p> <p>As per the question,  <math>(x + 14) + (y + 14) = 2(x + y)</math>  <math>x + y + 28 = 2x + 2y</math>  <math>x + y = 28</math> .....(i)</p> <p>Also,  <math>y + 8 = x</math>  <math>x - y = 8</math> .....(ii)</p> <p>Solving eqns (i) and (ii), we get  <math>x = 18</math> and <math>y = 10</math>  Therefore, Present ages of Kidambi and Srikanth is 18 years and 10 years respectively  Hence, option C is correct.</p>
25	E
26	<p>Answer – <b>C. 25 years</b></p> <p><b>Explanation :</b>  Present age of Ajay = x ; Present age of Ajay's sister = y  <math>x = (x-6)(5/4)</math>  <math>x = 30</math>  present age of Ajay's brother = <math>30 - 5 = 25</math></p>
27	C
28	<p>Answer: B) 9 yrs</p> <p>Explanation:  Let the present ages of A and B be 'x' and 'y' respectively  From the given data,  <math>[(x-2) + (y-2)]/2 = 26</math>  <math>\Rightarrow x+y = 56</math>  But given the age of A, 5 years hence is 40 yrs <math>\Rightarrow</math> present age of A = <math>40 - 5 = 35</math> yrs  <math>\Rightarrow x = 35 \Rightarrow y = 56 - 35 = 21</math>  <math>\Rightarrow</math> Age of B = 21 yrs  Given B is 5 years younger to C,  <math>\Rightarrow</math> Age of C = <math>21 + 5 = 26</math> yrs  <math>\Rightarrow</math> Required Difference between ages of A and C = <math>35 - 26 = 9</math> yrs.</p>
29	<p>Answer: B) 10</p> <p>Explanation:  Raj Tarun's age = 0 when he was born.  Then, given his brother is 6 years old.  Then his father is <math>6 + 32 = 38</math> when Raj Tarun was born  And his mother is 3 years yonger than his father <math>\Rightarrow</math> so his mother was 35 years old when Raj Tarun was born  and his sister is 25 year younger than his mother  so Raj Tarun's sister was 10 years old when Raj Tarun was born.</p>

30	<p><b>Answer:</b> D) 78 yrs</p> <p><b>Explanation:</b>  Let Hari Ram's present age = x  Then, his son's age = <math>x/3</math>  Father's age = <math>5x/2</math>  <math display="block">\frac{x + \frac{x}{3} + \frac{5}{2}x}{3} = 46</math> <math display="block">\Rightarrow x = 36 \text{ yrs}</math> Now the required difference = <math>\frac{5}{2} \times 36 - \frac{36}{3} = 78 \text{ yrs}</math></p>
31	<p><b>Answer:</b> Option E</p> <p><b>Explanation:</b>  I. <math>S = 5D \Rightarrow D = \frac{S}{5} \dots(i)</math>  II. <math>S - 5 = 25(D - 5) \Leftrightarrow S = 25D - 120 \dots(ii)</math>  Using (i) in (ii), we get <math>S = \left(25 \times \frac{S}{5}\right) - 120</math>  <math>\Rightarrow 4S = 120.</math>  <math>\Rightarrow S = 30.</math>  Thus, I and II both together give the answer. So, correct answer is (E).</p>
32	<p><b>Answer:</b> Option C</p> <p><b>Explanation:</b>  Let Divya's present age be D years and Shruti's present age be S years  Then, <math>D = 2 \times S \Leftrightarrow D - 2S = 0 \dots(i)</math>  I. <math>\frac{D+5}{S+5} = \frac{9}{5} \dots(ii)</math>  II. <math>\frac{D-10}{S-10} = \frac{3}{1} \dots(iii)</math>  From (ii), we get : <math>5D + 25 = 9S + 45 \Leftrightarrow 5D - 9S = 20 \dots(iv)</math>  From (iii), we get : <math>D - 10 = 3S - 30 \Leftrightarrow D - 3S = -20 \dots(v)</math>  Thus, from (i) and (ii), we get the answer.  Also, from (i) and (iii), we get the answer.  <math>\therefore</math> I alone as well as II alone give the answer. Hence, the correct answer is (C).</p>
33	<p><b>Answer:</b> Option D</p> <p><b>Explanation:</b>  II. Let the present ages of Arun and his son be <math>11x</math> and <math>6x</math> years respectively.  I. 5 years ago, Arun's age = <math>2 \times</math> His son's age.  III. 5 years hence, <math>\frac{\text{Arun's Age}}{\text{Son's age}} = \frac{12}{7}</math>  Clearly, any two of the above will give Arun's present age.  <math>\therefore</math> Correct answer is (D).</p>