**Time and Work**

|  |  |
| --- | --- |
| 1. | A can do a work in 15 days and B in 20 days. If they work on it together for 4 days, then the fraction of the work that is left is : |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | |  | | --- | | 1 | | 4 | | [**B.**](javascript:%20void%200;) | |  | | --- | | 1 | | 10 | | | [**C.**](javascript:%20void%200;) | |  | | --- | | 7 | | 15 | | [**D.**](javascript:%20void%200;) | |  | | --- | | 8 | | 15 | |   **Answer & Explanation**  **Answer:** Option **D**  **Explanation:**   |  |  |  | | --- | --- | --- | | A's 1 day's work = | 1 | ; | | 15 |  |  |  |  | | --- | --- | --- | | B's 1 day's work = | 1 | ; | | 20 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B)'s 1 day's work = | ( | 1 | + | 1 | ) | = | 7 | . | | 15 | 20 | 60 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B)'s 4 day's work = | ( | 7 | x 4 | ) | = | 7 | . | | 60 | 15 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Therefore, Remaining work = | ( | 1 - | 7 | ) | = | 8 | . | | 15 | 15 | |

|  |  |
| --- | --- |
| 2. | A can lay railway track between two given stations in 16 days and B can do the same job in 12 days. With help of C, they did the job in 4 days only. Then, C alone can do the job in: |
| |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 9 | 1 | days | | 5 | | [**B.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 9 | 2 | days | | 5 | | | [**C.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 9 | 3 | days | | 5 | | [**D.**](javascript:%20void%200;) | 10 |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  | | --- | --- | --- | | (A + B + C)'s 1 day's work = | 1 | , | | 4 |  |  |  |  | | --- | --- | --- | | A's 1 day's work = | 1 | , | | 16 |  |  |  |  | | --- | --- | --- | | B's 1 day's work = | 1 | . | | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Therefore C's 1 day's work = | 1 | - | ( | 1 | + | 1 | ) | = | ( | 1 | - | 7 | ) | = | 5 | . | | 4 | 16 | 12 | 4 | 48 | 48 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | So, C alone can do the work in | 48 | = 9 | 3 | days. | | 5 | 5 | |

|  |  |
| --- | --- |
| 3. | A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 12 days | [**B.**](javascript:%20void%200;) | 15 days | | [**C.**](javascript:%20void%200;) | 16 days | [**D.**](javascript:%20void%200;) | 18 days |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | A's 2 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | x 2 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . | | 20 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B + C)'s 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 6 | = | 1 | . | | 20 | 30 | 60 | 60 | 10 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Work done in 3 days = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . | | 10 | 10 | 5 |  |  |  |  | | --- | --- | --- | | Now, | 1 | work is done in 3 days. | | 5 |   http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif Whole work will be done in (3 x 5) = 15 days. |

|  |  |
| --- | --- |
| 4. | A is thrice as good as workman as B and therefore is able to finish a job in 60 days less than B. Working together, they can do it in: |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 20 days | [**B.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 22 | 1 | days | | 2 | | | [**C.**](javascript:%20void%200;) | 25 days | [**D.**](javascript:%20void%200;) | 30 days |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**  Ratio of times taken by A and B = 1 : 3.  The time difference is (3 - 1) 2 days while B take 3 days and A takes 1 day.  If difference of time is 2 days, B takes 3 days.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | If difference of time is 60 days, B takes | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 3 | x 60 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = 90 days. | | 2 |   So, A takes 30 days to do the work.   |  |  | | --- | --- | | A's 1 day's work = | 1 | | 30 |  |  |  | | --- | --- | | B's 1 day's work = | 1 | | 90 |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B)'s 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 4 | = | 2 | | 30 | 90 | 90 | 45 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif A and B together can do the work in | 45 | = 22 | 1 | days. | | 2 | 2 | |

|  |  |
| --- | --- |
| 5. | A alone can do a piece of work in 6 days and B alone in 8 days. A and B undertook to do it for Rs. 3200. With the help of C, they completed the work in 3 days. How much is to be paid to C? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | Rs. 375 | [**B.**](javascript:%20void%200;) | Rs. 400 | | [**C.**](javascript:%20void%200;) | Rs. 600 | [**D.**](javascript:%20void%200;) | Rs. 800 |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | C's 1 day's work = | 1 | - | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | - | 7 | = | 1 | . | | 3 | 6 | 8 | 3 | 24 | 24 |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | A's wages : B's wages : C's wages = | 1 | : | 1 | : | 1 | = 4 : 3 : 1. | | 6 | 8 | 24 |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gifC's share (for 3 days) = Rs. | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 3 x | 1 | x 3200 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = Rs. 400. | | 24 | |

|  |  |
| --- | --- |
| 6. | If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be: |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 4 days | [**B.**](javascript:%20void%200;) | 5 days | | [**C.**](javascript:%20void%200;) | 6 days | [**D.**](javascript:%20void%200;) | 7 days |   **Answer & Explanation**  **Answer:** Option **A**  **Explanation:**  Let 1 man's 1 day's work = *x* and 1 boy's 1 day's work = *y*.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Then, 6*x* + 8*y* = | 1 | and 26*x* + 48*y* = | 1 | . | | 10 | 2 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | Solving these two equations, we get : *x* = | 1 | and *y* = | 1 | . | | 100 | 200 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (15 men + 20 boy)'s 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 15 | + | 20 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . | | 100 | 200 | 4 |   http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 15 men and 20 boys can do the work in 4 days. |

|  |  |
| --- | --- |
| 7. | A can do a piece of work in 4 hours; B and C together can do it in 3 hours, while A and C together can do it in 2 hours. How long will B alone take to do it? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 8 hours | [**B.**](javascript:%20void%200;) | 10 hours | | [**C.**](javascript:%20void%200;) | 12 hours | [**D.**](javascript:%20void%200;) | 24 hours |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  | | --- | --- | --- | | A's 1 hour's work = | 1 | ; | | 4 |  |  |  |  | | --- | --- | --- | | (B + C)'s 1 hour's work = | 1 | ; | | 3 |  |  |  |  | | --- | --- | --- | | (A + C)'s 1 hour's work = | 1 | . | | 2 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B + C)'s 1 hour's work = | ( | 1 | + | 1 | ) | = | 7 | . | | 4 | 3 | 12 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | B's 1 hour's work = | ( | 7 | - | 1 | ) | = | 1 | . | | 12 | 2 | 12 |   Therefore B alone will take 12 hours to do the work. |

|  |  |
| --- | --- |
| 8. | A can do a certain work in the same time in which B and C together can do it. If A and B together could do it in 10 days and C alone in 50 days, then B alone could do it in: |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 15 days | [**B.**](javascript:%20void%200;) | 20 days | | [**C.**](javascript:%20void%200;) | 25 days | [**D.**](javascript:%20void%200;) | 30 days |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  | | --- | --- | | (A + B)'s 1 day's work = | 1 | | 10 |  |  |  | | --- | --- | | C's 1 day's work = | 1 | | 50 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B + C)'s 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 6 | = | 3 | . .... (i) | | 10 | 50 | 50 | 25 |   A's 1 day's work = (B + C)'s 1 day's work .... (ii)   |  |  | | --- | --- | | From (i) and (ii), we get: 2 x (A's 1 day's work) = | 3 | | 25 |  |  |  |  | | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif A's 1 day's work = | 3 | . | | 50 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif B's 1 day's work | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | - | 3 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 2 | = | 1 | . | | 10 | 50 | 50 | 25 |   So, B alone could do the work in 25 days. |

|  |  |
| --- | --- |
| 9. | A does 80% of a work in 20 days. He then calls in B and they together finish the remaining work in 3 days. How long B alone would take to do the whole work? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 23 days | [**B.**](javascript:%20void%200;) | 37 days | | [**C.**](javascript:%20void%200;) | 371/2 | [**D.**](javascript:%20void%200;) | 40 days |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Whole work is done by A in | ( | 20 x | 5 | ) | = 25 days. | | 4 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Now, | ( | 1 - | 4 | ) | i.e., | 1 | work is done by A and B in 3 days. | | 5 | 5 |   Whole work will be done by A and B in (3 x 5) = 15 days.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | A's 1 day's work = | 1 | , (A + B)'s 1 day's work = | 1 | . | | 25 | 15 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Therefore B's 1 day's work = | ( | 1 | - | 1 | ) | = | 4 | = | 2 | . | | 15 | 25 | 150 | 75 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | So, B alone would do the work in | 75 | = 37 | 1 | days. | | 2 | 2 | |

|  |  |
| --- | --- |
| 10. | A machine P can print one lakh books in 8 hours, machine Q can print the same number of books in 10 hours while machine R can print them in 12 hours. All the machines are started at 9 A.M. while machine P is closed at 11 A.M. and the remaining two machines complete work. Approximately at what time will the work (to print one lakh books) be finished ? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 11:30 A.M. | [**B.**](javascript:%20void%200;) | 12 noon | | [**C.**](javascript:%20void%200;) | 12:30 P.M. | [**D.**](javascript:%20void%200;) | 1:00 P.M. |   **Answer & Explanation**  **Answer:** Option **D**  **Explanation:**   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (P + Q + R)'s 1 hour's work = | ( | 1 | + | 1 | + | 1 | ) | = | 37 | . | | 8 | 10 | 12 | 120 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Work done by P, Q and R in 2 hours = | ( | 37 | x 2 | ) | = | 37 | . | | 120 | 60 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | ( | 1 - | 37 | ) | = | 23 | . | | 60 | 60 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (Q + R)'s 1 hour's work = | ( | 1 | + | 1 | ) | = | 11 | . | | 10 | 12 | 60 |  |  |  |  | | --- | --- | --- | | Now, | 11 | work is done by Q and R in 1 hour. | | 60 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | So, | 23 | work will be done by Q and R in | ( | 60 | x | 23 | ) | = | 23 | hours = 2 hours. | | 60 | 11 | 60 | 11 |   So, the work will be finished approximately 2 hours after 11 A.M., i.e., around 1 P.M. |

|  |  |
| --- | --- |
| 11. | A can finish a work in 18 days and B can do the same work in 15 days. B worked for 10 days and left the job. In how many days, A alone can finish the remaining work? |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 5 | [**B.**](javascript:%20void%200;) | |  |  | | --- | --- | | 5 | 1 | | 2 | | | [**C.**](javascript:%20void%200;) | 6 | [**D.**](javascript:%20void%200;) | 8 |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | B's 10 day's work = | ( | 1 | x 10 | ) | = | 2 | . | | 15 | 3 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | ( | 1 - | 2 | ) | = | 1 | . | | 3 | 3 |  |  |  |  | | --- | --- | --- | | Now, | 1 | work is done by A in 1 day. | | 18 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Therefore | 1 | work is done by A in | ( | 18 x | 1 | ) | = 6 days. | | 3 | 3 | |

|  |  |
| --- | --- |
| 12. | 4 men and 6 women can complete a work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 10 women complete it? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 35 | [**B.**](javascript:%20void%200;) | 40 | | [**C.**](javascript:%20void%200;) | 45 | [**D.**](javascript:%20void%200;) | 50 |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**  Let 1 man's 1 day's work = *x* and 1 woman's 1 day's work = *y*.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Then, 4*x* + 6*y* = | 1 | and 3*x* + 7*y* = | 1 | . | | 8 | 10 |  |  |  |  |  | | --- | --- | --- | --- | | Solving the two equations, we get: *x* = | 11 | , *y* = | 1 | | 400 | 400 |  |  |  |  | | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 1 woman's 1 day's work = | 1 | . | | 400 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif 10 women's 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | x 10 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . | | 400 | 40 |   Hence, 10 women will complete the work in 40 days. |

|  |  |
| --- | --- |
| 13. | A and B can together finish a work 30 days. They worked together for 20 days and then B left. After another 20 days, A finished the remaining work. In how many days A alone can finish the work? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 40 | [**B.**](javascript:%20void%200;) | 50 | | [**C.**](javascript:%20void%200;) | 54 | [**D.**](javascript:%20void%200;) | 60 |   **Answer & Explanation**  **Answer:** Option **D**  **Explanation:**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B)'s 20 day's work = | ( | 1 | x 20 | ) | = | 2 | . | | 30 | 3 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | ( | 1 - | 2 | ) | = | 1 | . | | 3 | 3 |  |  |  |  | | --- | --- | --- | | Now, | 1 | work is done by A in 20 days. | | 3 |   Therefore, the whole work will be done by A in (20 x 3) = 60 days. |

|  |  |
| --- | --- |
| 14. | P can complete a work in 12 days working 8 hours a day. Q can complete the same work in 8 days working 10 hours a day. If both P and Q work together, working 8 hours a day, in how many days can they complete the work? |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | |  |  | | --- | --- | | 5 | 5 | | 11 | | [**B.**](javascript:%20void%200;) | |  |  | | --- | --- | | 5 | 6 | | 11 | | | [**C.**](javascript:%20void%200;) | |  |  | | --- | --- | | 6 | 5 | | 11 | | [**D.**](javascript:%20void%200;) | |  |  | | --- | --- | | 6 | 6 | | 11 | |   **Answer & Explanation**  **Answer:** Option **A**  **Explanation:**  P can complete the work in (12 x 8) hrs. = 96 hrs.  Q can complete the work in (8 x 10) hrs. = 80 hrs.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif P's1 hour's work = | 1 | and Q's 1 hour's work = | 1 | . | | 96 | 80 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (P + Q)'s 1 hour's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 11 | . | | 96 | 80 | 480 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | So, both P and Q will finish the work in | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 480 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | hrs. | | 11 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif Number of days of 8 hours each = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 480 | x | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 60 | days = 5 | 5 | days. | | 11 | 8 | 11 | 11 | |

|  |  |
| --- | --- |
| 15. | 10 women can complete a work in 7 days and 10 children take 14 days to complete the work. How many days will 5 women and 10 children take to complete the work? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 3 | [**B.**](javascript:%20void%200;) | 5 | | [**C.**](javascript:%20void%200;) | 7 | [**D.**](javascript:%20void%200;) | Cannot be determined | | [**E.**](javascript:%20void%200;) | None of these |  |  |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  | | --- | --- | | 1 woman's 1 day's work = | 1 | | 70 |  |  |  | | --- | --- | | 1 child's 1 day's work = | 1 | | 140 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (5 women + 10 children)'s day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 5 | + | 10 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | | 70 | 140 | 14 | 14 | 7 |   http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 5 women and 10 children will complete the work in 7 days. |

|  |  |
| --- | --- |
| 16. | X and Y can do a piece of work in 20 days and 12 days respectively. X started the work alone and then after 4 days Y joined him till the completion of the work. How long did the work last? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 6 days | [**B.**](javascript:%20void%200;) | 10 days | | [**C.**](javascript:%20void%200;) | 15 days | [**D.**](javascript:%20void%200;) | 20 days |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Work done by X in 4 days = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | x 4 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . | | 20 | 5 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 - | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 4 | . | | 5 | 5 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (X + Y)'s 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 8 | = | 2 | . | | 20 | 12 | 60 | 15 |  |  |  |  | | --- | --- | --- | | Now, | 2 | work is done by X and Y in 1 day. | | 15 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | So, | 4 | work will be done by X and Y in | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 15 | x | 4 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = 6 days. | | 5 | 2 | 5 |   Hence, total time taken = (6 + 4) days = 10 days. |

|  |  |
| --- | --- |
| 17. | A is 30% more efficient than B. How much time will they, working together, take to complete a job which A alone could have done in 23 days? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 11 days | [**B.**](javascript:%20void%200;) | 13 days | | [**C.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 20 | 3 | days | | 17 | | [**D.**](javascript:%20void%200;) | None of these |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**  Ratio of times taken by A and B = 100 : 130 = 10 : 13.  Suppose B takes *x* days to do the work.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Then, 10 : 13 :: 23 : *x*     =>     *x* = | ( | 23 x 13 | ) | =>     *x* = | 299 | . | | 10 | 10 |  |  |  |  | | --- | --- | --- | | A's 1 day's work = | 1 | ; | | 23 |  |  |  |  | | --- | --- | --- | | B's 1 day's work = | 10 | . | | 299 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B)'s 1 day's work = | ( | 1 | + | 10 | ) | = | 23 | = | 1 | . | | 23 | 299 | 299 | 13 |   Therefore, A and B together can complete the work in 13 days. |

|  |  |
| --- | --- |
| 18. | Ravi and Kumar are working on an assignment. Ravi takes 6 hours to type 32 pages on a computer, while Kumar takes 5 hours to type 40 pages. How much time will they take, working together on two different computers to type an assignment of 110 pages? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 7 hours 30 minutes | [**B.**](javascript:%20void%200;) | 8 hours | | [**C.**](javascript:%20void%200;) | 8 hours 15 minutes | [**D.**](javascript:%20void%200;) | 8 hours 25 minutes |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Number of pages typed by Ravi in 1 hour = | 32 | = | 16 | . | | 6 | 3 |  |  |  |  | | --- | --- | --- | | Number of pages typed by Kumar in 1 hour = | 40 | = 8. | | 5 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Number of pages typed by both in 1 hour = | ( | 16 | + 8 | ) | = | 40 | . | | 3 | 3 |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Therefore Time taken by both to type 110 pages = | ( | 110 x | 3 | ) | hours | | 40 |  |  |  |  | | --- | --- | --- | | = 8 | 1 | hours (or) 8 hours 15 minutes. | | 4 | |

|  |  |
| --- | --- |
| 19. | A, B and C can complete a piece of work in 24, 6 and 12 days respectively. Working together, they will complete the same work in: |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | |  |  | | --- | --- | | 1 | day | | 24 | | [**B.**](javascript:%20void%200;) | |  |  | | --- | --- | | 7 | day | | 24 | | | [**C.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 3 | 3 | days | | 7 | | [**D.**](javascript:%20void%200;) | 4 days |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  | | --- | --- | --- | | **Formula:** If A can do a piece of work in *n* days, then A's 1 day's work = | 1 | . | | *n* |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B + C)'s 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 7 | . | | 24 | 6 | 12 | 24 |  |  |  |  |  | | --- | --- | --- | --- | | **Formula:** If A's 1 day's work = | 1 | , | then A can finish the work in *n* days. | | *n* |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | So, all the three together will complete the job in | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 24 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif days | = | 3 | 3 | days. | | 7 | 7 | |

|  |  |
| --- | --- |
| 20. | Sakshi can do a piece of work in 20 days. Tanya is 25% more efficient than Sakshi. The number of days taken by Tanya to do the same piece of work is: |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 15 | [**B.**](javascript:%20void%200;) | 16 | | [**C.**](javascript:%20void%200;) | 18 | [**D.**](javascript:%20void%200;) | 25 |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**  Ratio of times taken by Sakshi and Tanya = 125 : 100 = 5 : 4.  Suppose Tanya takes *x* days to do the work.   |  |  |  |  | | --- | --- | --- | --- | | 5 : 4 **::** 20 : *x*    http://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif *x* = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 4 x 20 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | | 5 |   http://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif *x* = 16 days.  Hence, Tanya takes 16 days to complete the work. |

|  |  |
| --- | --- |
| 21. | A takes twice as much time as B or thrice as much time as C to finish a piece of work. Working together, they can finish the work in 2 days. B can do the work alone in: |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 4 days | [**B.**](javascript:%20void%200;) | 6 days | | [**C.**](javascript:%20void%200;) | 8 days | [**D.**](javascript:%20void%200;) | 12 days |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Suppose A, B and C take *x*, | *x* | and | *x* | days respectively to finish the work. | | 2 | 3 |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Then, | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 2 | + | 3 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | | *x* | *x* | *x* | 2 |  |  |  |  |  | | --- | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif | 6 | = | 1 | | *x* | 2 |   http://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif *x* = 12.  So, B takes (12/2) = 6 days to finish the work. |

|  |  |
| --- | --- |
| 22. | A and B can complete a work in 15 days and 10 days respectively. They started doing the work together but after 2 days B had to leave and A alone completed the remaining work. The whole work was completed in : |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 8 days | [**B.**](javascript:%20void%200;) | 10 days | | [**C.**](javascript:%20void%200;) | 12 days | [**D.**](javascript:%20void%200;) | 15 days |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B)'s 1 day's work = | ( | 1 | + | 1 | ) | = | 1 | . | | 15 | 10 | 6 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Work done by A and B in 2 days = | ( | 1 | x 2 | ) | = | 1 | . | | 6 | 3 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | ( | 1 - | 1 | ) | = | 2 | . | | 3 | 3 |  |  |  |  | | --- | --- | --- | | Now, | 1 | work is done by A in 1 day. | | 15 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Therefore | 2 | work will be done by a in | ( | 15 x | 2 | ) | = 10 days. | | 3 | 3 |   Hence, the total time taken = (10 + 2) = 12 days. |

|  |  |
| --- | --- |
| 23. | A and B can do a piece of work in 30 days, while B and C can do the same work in 24 days and C and A in 20 days. They all work together for 10 days when B and C leave. How many days more will A take to finish the work? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 18 days | [**B.**](javascript:%20void%200;) | 24 days | | [**C.**](javascript:%20void%200;) | 30 days | [**D.**](javascript:%20void%200;) | 36 days |   **Answer & Explanation**  **Answer:** Option **A**  **Explanation:**   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 2(A + B + C)'s 1 day's work = | ( | 1 | + | 1 | + | 1 | ) | = | 15 | = | 1 | . | | 30 | 24 | 20 | 120 | 8 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | Therefore, (A + B + C)'s 1 day's work = | 1 | = | 1 | . | | 2 x 8 | 16 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | Work done by A, B, C in 10 days = | 10 | = | 5 | . | | 16 | 8 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | ( | 1 - | 5 | ) | = | 3 | . | | 8 | 8 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | A's 1 day's work = | ( | 1 | - | 1 | ) | = | 1 | . | | 16 | 24 | 48 |  |  |  |  | | --- | --- | --- | | Now, | 1 | work is done by A in 1 day. | | 48 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | So, | 3 | work will be done by A in | ( | 48 x | 3 | ) | = 18 days. | | 8 | 8 | |

|  |  |
| --- | --- |
| 24. | A works twice as fast as B. If B can complete a work in 12 days independently, the number of days in which A and B can together finish the work in : |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 4 days | [**B.**](javascript:%20void%200;) | 6 days | | [**C.**](javascript:%20void%200;) | 8 days | [**D.**](javascript:%20void%200;) | 18 days |   **Answer & Explanation**  **Answer:** Option **A**  **Explanation:**  Ratio of rates of working of A and B = 2 : 1.  So, ratio of times taken = 1 : 2.   |  |  |  | | --- | --- | --- | | B's 1 day's work = | 1 | . | | 12 |  |  |  |  | | --- | --- | --- | | Therefore A's 1 day's work = | 1 | ; (2 times of B's work) | | 6 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (A + B)'s 1 day's work = | ( | 1 | + | 1 | ) | = | 3 | = | 1 | . | | 6 | 12 | 12 | 4 |   So, A and B together can finish the work in 4 days. |

|  |  |
| --- | --- |
| 25. | Twenty women can do a work in sixteen days. Sixteen men can complete the same work in fifteen days. What is the ratio between the capacity of a man and a woman? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 3 : 4 | [**B.**](javascript:%20void%200;) | 4 : 3 | | [**C.**](javascript:%20void%200;) | 5 : 3 | [**D.**](javascript:%20void%200;) | Data inadequate |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**  (20 x 16) women can complete the work in 1 day.   |  |  |  | | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 1 woman's 1 day's work = | 1 | . | | 320 |   (16 x 15) men can complete the work in 1 day.   |  |  | | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 1 man's 1 day's work = | 1 | | 240 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | So, required ratio | |  |  |  |  | | --- | --- | --- | --- | | = | 1 | : | 1 | | 240 | 320 | | |  | |  |  |  |  | | --- | --- | --- | --- | | = | 1 | : | 1 | | 3 | 4 | | |  | = 4 : 3 (cross multiplied) | |

|  |  |
| --- | --- |
| 26. | A and B can do a work in 8 days, B and C can do the same work in 12 days. A, B and C together can finish it in 6 days. A and C together will do it in : |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 4 days | [**B.**](javascript:%20void%200;) | 6 days | | [**C.**](javascript:%20void%200;) | 8 days | [**D.**](javascript:%20void%200;) | 12 days |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  | | --- | --- | --- | | (A + B + C)'s 1 day's work = | 1 | ; | | 6 |  |  |  |  | | --- | --- | --- | | (A + B)'s 1 day's work = | 1 | ; | | 8 |  |  |  |  | | --- | --- | --- | | (B + C)'s 1 day's work = | 1 | . | | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Therefore (A + C)'s 1 day's work | |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | = | ( | 2 x | 1 | ) | - | ( | 1 | + | 1 | ) | | 6 | 8 | 12 | | |  | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | = | ( | 1 | - | 5 | ( | | 3 | 24 | | |  | |  |  | | --- | --- | | = | 3 | | 24 | | |  | |  |  |  | | --- | --- | --- | | = | 1 | . | | 8 | |   So, A and C together will do the work in 8 days. |

|  |  |
| --- | --- |
| 27. | A can finish a work in 24 days, B in 9 days and C in 12 days. B and C start the work but are forced to leave after 3 days. The remaining work was done by A in: |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 5 days | [**B.**](javascript:%20void%200;) | 6 days | | [**C.**](javascript:%20void%200;) | 10 days | [**D.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 10 | 1 | days | | 2 | |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (B + C)'s 1 day's work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 7 | . | | 9 | 12 | 36 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Work done by B and C in 3 days = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 7 | x 3 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 7 | . | | 36 | 12 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 - | 7 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 5 | . | | 12 | 12 |  |  |  |  | | --- | --- | --- | | Now, | 1 | work is done by A in 1 day. | | 24 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | So, | 5 | work is done by A in | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 24 x | 5 | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = 10 days. | | 12 | 12 | |

|  |  |
| --- | --- |
| 28. | X can do a piece of work in 40 days. He works at it for 8 days and then Y finished it in 16 days. How long will they together take to complete the work? |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 13 | 1 | days | | 3 | | [**B.**](javascript:%20void%200;) | 15 days | | [**C.**](javascript:%20void%200;) | 20 days | [**D.**](javascript:%20void%200;) | 26 days |   **Answer & Explanation**  **Answer:** Option **A**  **Explanation:**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Work done by X in 8 days = | ( | 1 | x 8 | ) | = | 1 | . | | 40 | 5 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Remaining work = | ( | 1 - | 1 | ) | = | 4 | . | | 5 | 5 |  |  |  |  | | --- | --- | --- | | Now, | 4 | work is done by Y in 16 days. | | 5 |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Whole work will be done by Y in | ( | 16 x | 5 | ) | = 20 days. | | 4 |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | Therefore X's 1 day's work = | 1 | , Y's 1 day's work = | 1 | . | | 40 | 20 |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | (X + Y)'s 1 day's work = | ( | 1 | + | 1 | ) | = | 3 | . | | 40 | 20 | 40 |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Hence, X and Y will together complete the work in | ( | 40 | ) | = 13 | 1 | days. | | 3 | 3 | |

|  |  |
| --- | --- |
| 29. | A and B can do a job together in 7 days. A is 13/4 times as efficient as B. The same job can be done by A alone in : |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 9 | 1 | days | | 3 | | [**B.**](javascript:%20void%200;) | 11 days | | [**C.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 12 | 1 | days | | 4 | | [**D.**](javascript:%20void%200;) | |  |  |  | | --- | --- | --- | | 16 | 1 | days | | 3 | |   **Answer & Explanation**  **Answer:** Option **B**  **Explanation:**   |  |  |  | | --- | --- | --- | | (A's 1 day's work) : (B's 1 day's work) = | 7 | : 1   =   7 : 4. | | 4 |   Let A's and B's 1 day's work be 7*x* and 4*x* respectively.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Then, 7*x* + 4*x* = | 1 | =>     11*x* = | 1 | =>     *x* = | 1 | . | | 7 | 7 | 77 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Therefore A's 1 day's work = | ( | 1 | x 7 | ) | = | 1 | . | | 77 | 11 | |

|  |  |
| --- | --- |
| 30. | A and B together can do a piece of work in 30 days. A having worked for 16 days, B finishes the remaining work alone in 44 days. In how many days shall B finish the whole work alone? |
| |  |  |  |  | | --- | --- | --- | --- | | [**A.**](javascript:%20void%200;) | 30 days | [**B.**](javascript:%20void%200;) | 40 days | | [**C.**](javascript:%20void%200;) | 60 days | [**D.**](javascript:%20void%200;) | 70 days |   **Answer & Explanation**  **Answer:** Option **C**  **Explanation:**  Let A's 1 day's work = *x* and B's 1 day's work = *y*.   |  |  |  | | --- | --- | --- | | Then, *x* + *y* = | 1 | and 16*x* + 44*y* = 1. | | 30 |  |  |  |  |  | | --- | --- | --- | --- | | Solving these two equations, we get: *x* = | 1 | and *y* = | 1 | | 60 | 60 |  |  |  |  | | --- | --- | --- | | http://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif B's 1 day's work = | 1 | . | | 60 |   Hence, B alone shall finish the whole work in 60 days. |