

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 :

$$\frac{1}{4}$$

$$\frac{1}{10}$$

$$\frac{7}{15}$$

$$\frac{8}{15}$$

**Answer:** Option

**Explanation:**

$$\text{A's 1 day's work} = \frac{1}{15} ;$$

$$\text{B's 1 day's work} = \frac{1}{20} ;$$

$$(\text{A} + \text{B})\text{'s 1 day's work} = \left( \frac{1}{15} + \frac{1}{20} \right) = \frac{7}{60}.$$

$$(\text{A} + \text{B})\text{'s 4 day's work} = \left( \frac{7}{60} \times 4 \right) = \frac{7}{15}.$$

$$\text{Therefore, Remaining work} = \left( 1 - \frac{7}{15} \right) = \frac{8}{15}.$$

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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:

$$9\frac{1}{5} \text{ days}$$

$$9\frac{2}{5} \text{ days}$$

$$9\frac{3}{5} \text{ days}$$

$$10$$

**Answer:** Option

**Explanation:**

$$(A + B + C)\text{'s 1 day's work} = \frac{1}{4},$$

$$A\text{'s 1 day's work} = \frac{1}{16},$$

$$B\text{'s 1 day's work} = \frac{1}{12}.$$

$$\therefore C\text{'s 1 day's work} = \frac{1}{4} - \left( \frac{1}{16} + \frac{1}{12} \right) = \left( \frac{1}{4} - \frac{7}{48} \right) = \frac{5}{48}.$$

So, C alone can do the work in  $\frac{48}{5} = 9\frac{3}{5}$  days.

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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?

12 days

15 days

16 days

18 days

**Answer:** Option

**Explanation:**

$$A\text{'s 2 day's work} = \left( \frac{1}{20} \times 2 \right) = \frac{1}{10}.$$

$$(A + B + C)\text{'s 1 day's work} = \left( \frac{1}{20} + \frac{1}{30} + \frac{1}{60} \right) = \frac{6}{60} = \frac{1}{10}.$$

$$\text{Work done in 3 days} = \left( \frac{1}{10} + \frac{1}{10} \right) = \frac{1}{5}.$$

Now,  $\frac{1}{5}$  work is done in 3 days.

$\therefore$  Whole work will be done in  $(3 \times 5) = 15$  days.

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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:

20 days

$22\frac{1}{2}$  days

25 days

30 days

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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?

Rs. 375

Rs. 400

Rs. 600

Rs. 800

**Answer:** Option

**Explanation:**

$$\text{C's 1 day's work} = \frac{1}{3} - \left( \frac{1}{6} + \frac{1}{8} \right) = \frac{1}{3} - \frac{7}{24} = \frac{1}{24}.$$

$$\text{A's wages : B's wages : C's wages} = \frac{1}{6} : \frac{1}{8} : \frac{1}{24} = 4 : 3 : 1.$$

$$\therefore \text{C's share (for 3 days)} = \text{Rs.} \left( 3 \times \frac{1}{24} \times 3200 \right) = \text{Rs. 400}.$$