Farhan can do a work in 6 days, while Uzair in 9 days. How many days will both take together to complete the work?

A. 2 days
B. 4 days
C. 5 days
D. 6 days

Show Answer…
Correct Answer: B (4 days)

Explanation:
Let’s find out how much work Farhan and Uzair can do in one day individually.

Farhan can finish the work in 6 days, so his work rate per day is 1/6 (representing the fraction of work he completes each day).

Uzair can finish the work in 9 days, so his work rate per day is 1/9 (representing the fraction of work he completes each day).

Now, let’s calculate their combined work rate when they work together:

Combined work rate = Farhan’s work rate + Uzair’s work rate
Combined work rate = 1/6 + 1/9

To add these fractions, we find the common denominator, which is 18:

Combined work rate = (3/18) + (2/18)
Combined work rate = 5/18

To find out how many days it would take them to finish the work together, we divide 1 (the total work) by their combined work rate:

Farhan can do a work in 6 days, while Uzair in 9 days. How many days will both take together to complete the work?

Time taken together = 1 / Combined work rate
Time taken together = 1 / (5/18)
Time taken together = 1 * (18/5)
Time taken together = **18/5 = 3.6**

Now, we convert this improper fraction to a mixed fraction:

Time taken together = 3 3/5 days

Since we cannot have a fraction of a day, we round it up to the nearest whole day. So, both Farhan and Uzair will take 3.6≈4 days together to complete the work.

Therefore, the correct answer is B (4 days).