Without repetition of the numbers, four digit numbers are formed with the numbers 0, 2, 3, 5. The probability of such a number divisible by 5 is

A. $\dfrac{1}{5}$

B. $\dfrac{4}{5}$

C. $\dfrac{1}{30}$

D. $\dfrac{5}{9}$

Solution:

D. 5/9

Explanation:

A number is divisible by 5 if its unit place is either 0 or 5.

If unit place is '0'

Ways of filling first three places=3!=6

If units place is '5'

ways of filling first place=2 and second and third place can be filled in 2! ways

Total no. of ways which are divisible by 5 = 6+4=10=n(favourable)

Total no. of ways = 3*3*2*1=18

Req. probability=10/18=5/9