#81786 Chemistry, Other

1 mol of hydrogen gas and 1 mol of iodine vapour were mixed and allowed to react. After t seconds, 0.8 mol of hydrogen remained.

The number of moles of hydrogen iodide formed after t seconds was;

A 0.2

B 0.4 C 0.8

D 1.6

Answer:

 $H_2 + I_2 = 2HI$

Fom this equation, at any point the ratio of hydrogen to the final product hydrogen iodide is 1:2.

We're told 0.8 mol of hydrogen remains, which means 0.2 mol has been used up.

From the ratio we can tell we should have twice as many mols of hydrogen iodide. Therefore the answer is B (0.4).

Answer provided by www.AssignmentExpert.com