Probability Assignment

EE22BTECH11022-G.SAI HARSHITH*

Question: If $Pr(AB) = \frac{7}{10}$ and $Pr(B) = \frac{17}{20}$, then Pr(A|B) equals

1) $\frac{14}{17}$ 2) $\frac{17}{20}$ 3) $\frac{7}{8}$ 4) $\frac{1}{8}$ Solution: We know

Pr
$$(A|B) = \frac{\Pr(AB)}{\Pr(B)}$$
 (1)

$$= \frac{\frac{7}{10}}{\frac{17}{20}}$$
 (2)

$$= \frac{14}{17}$$
 (3)

$$=\frac{\frac{7}{10}}{\frac{17}{20}}\tag{2}$$

$$=\frac{14}{17}\tag{3}$$