PROBABILITY PROBLEM SOLVING – INDEPENDENT EVENTS

If A and B are independent events then:

\[ P(A \text{ and } B) = P(A) \times P(B) \]

P1. Calculate the probability of a fish being in regions A and B at the same time.

\[ P(A) = \frac{3}{5} \quad P(B) = \frac{4}{9} \quad ? \]

P2. Calculate the probability of a fish being in the right-hand side of the tank and less than 2 metres from the surface.

P3. Calculate the probability of a fish being in the bottom \( \frac{2}{5} \) of the tank whilst being less than 3m from the left hand side.

P4. Calculate the probability of a fish being less than 2m from the surface whilst on the left-hand side and less than 1m from the front.

P5. Calculate the probability of a fish being anywhere in region B.

\[ P(A) = \frac{4}{5} \quad P(A \text{ and } B) = \frac{4}{9} \]

P6. Challenge

\[ P(A) = \frac{2}{5} \quad P(A) = \frac{5}{9} \]

How confident do I feel about independent event problems?

R A G