PROBABILITY PROBLEM SOLVING – INDEPENDENT EVENTS
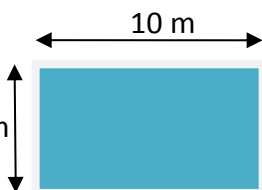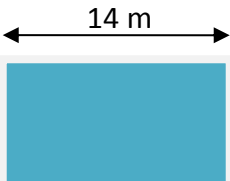
If A and B are **independent events** then:

P(A and B) = P(A) x P(B)

P1.
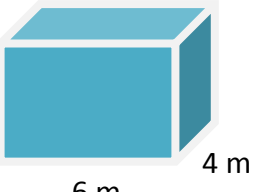
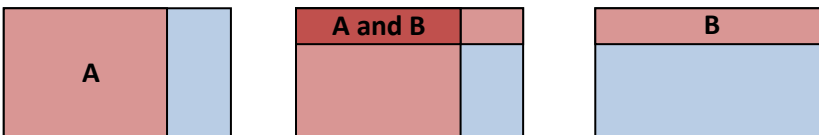$$P(A) = \frac{3}{5} \qquad P(B) = \frac{4}{9} \qquad ?$$

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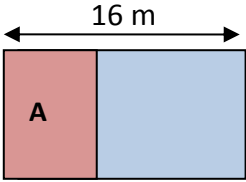

P2.

10 m

8m

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

P3.

14 m

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.
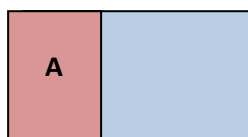

P4.

5m

6 m

4 m

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.

$$P(A) = \frac{4}{5} \qquad P(A \text{ and } B) = \frac{4}{9}$$

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

P6.

16 m

A

x

$$P(A) = \frac{2}{5}$$

Calculate the length x.

CHALLENGE

A

6 m x

$$P(A) = \frac{5}{9}$$

Calculate the length x.

How confident do I feel about independent event problems?   R   A   G