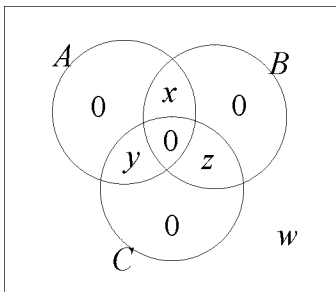


15. Solution: C

A Venn diagram for this situation looks like:



We want to find $w = 1 - (x + y + z)$

We have $x + y = \frac{1}{4}$, $x + z = \frac{1}{3}$, $y + z = \frac{5}{12}$

Adding these three equations gives

$$(x + y) + (x + z) + (y + z) = \frac{1}{4} + \frac{1}{3} + \frac{5}{12}$$

$$2(x + y + z) = 1$$

$$x + y + z = \frac{1}{2}$$

$$w = 1 - (x + y + z) = 1 - \frac{1}{2} = \frac{1}{2}$$

Alternatively the three equations can be solved to give $x = 1/12$, $y = 1/6$, $z = 1/4$

again leading to $w = 1 - \left(\frac{1}{12} + \frac{1}{6} + \frac{1}{4}\right) = \frac{1}{2}$