

ES6 N5 Applications of Maths (Numeracy) Expected Frequency

Worked Solutions Courtesy of Mr R. Milton

$$\textcircled{1} \quad P(W) = 0.32$$

$$\begin{aligned} \text{WINS} &= 20 \times 0.32 \\ &= 6.4 \\ &= \underline{6 \text{ WINS}} \quad \checkmark \end{aligned}$$

$$\textcircled{2} \quad P(B) = 0.04$$

$$\begin{aligned} \text{N}^\circ \text{ EXPECTED} &= 0.04 \times 60 \\ &= 2.4 \\ &= \underline{2 \text{ WEEKS}} \quad \checkmark \end{aligned}$$

$$\textcircled{3} \quad P(S) = 0.27$$

$$\begin{aligned} \text{DAYS IN DECEMBER} &= 0.27 \times 31 \\ &= 8.37 \\ &= \underline{8 \text{ DAYS}} \quad \checkmark \end{aligned}$$

$$\textcircled{4} \quad P(T) = 0.34$$

$$\begin{aligned} \text{N}^\circ \text{ ARRIVING ON TIME} &= 0.34 \times 38 \\ &= 12.92 \\ &= \underline{13 \text{ FLIGHTS}} \quad \checkmark \end{aligned}$$

$$(5) P(T) = 0.86$$

$$N^{\circ} \text{ OF PUPILS} = 0.86 \times 560$$

$$= 481.6$$

$$= \underline{482 \text{ PUPILS}} \checkmark$$

$$(6) P(DE) = 0.08$$

$$N^{\circ} \text{ OF EGGS DAMAGED} = 0.08 \times 30$$

$$= 2.4 \text{ DOZEN}$$

$$= 2.4 \times 12$$

$$= 28.8$$

$$= \underline{29 \text{ EGGS}} \checkmark$$

$$(7) P(\text{SIGN UP}) = 0.012$$

$$N^{\circ} \text{ OF CUSTOMERS} = 0.012 \times 600$$

$$= 7.2$$

$$= \underline{7 \text{ CUSTOMERS}} \checkmark$$

$$(8) P(FA) = \frac{3.2}{100} = 0.032$$

$$N^{\circ} \text{ OF PUPILS} = 0.032 \times 586$$

$$= 18.752$$

$$= \underline{19 \text{ PUPILS}} \checkmark$$

$$(9) P(A) = \frac{24}{42} = \frac{4}{7}$$

$$\begin{aligned} \text{N}^\circ \text{ OF PUPILS} \\ \text{EXPECTED TO GET} \\ \text{AN 'A'} &= \frac{24}{42} \times 50 \\ &= \frac{4}{7} \times 50 \\ &= 28.57 \\ &= \underline{29 \text{ PUPILS}} \checkmark \end{aligned}$$

$$(10) P(T) = 0.054$$

$$\begin{aligned} \text{N}^\circ \text{ OF PARCELS LOST} &= 0.054 \times 140 \\ &= 7.56 \\ &= \underline{8 \text{ PARCELS}} \checkmark \end{aligned}$$

AQ

$$\begin{aligned} P(< 30 \text{ mbps}) &= 0.0138 \text{ DAYS PER YEAR} \\ &= 0.0138 \times 365 \\ &= 5.037 \text{ DAYS} \end{aligned}$$

MORE AS $6 > 5.037$ \checkmark