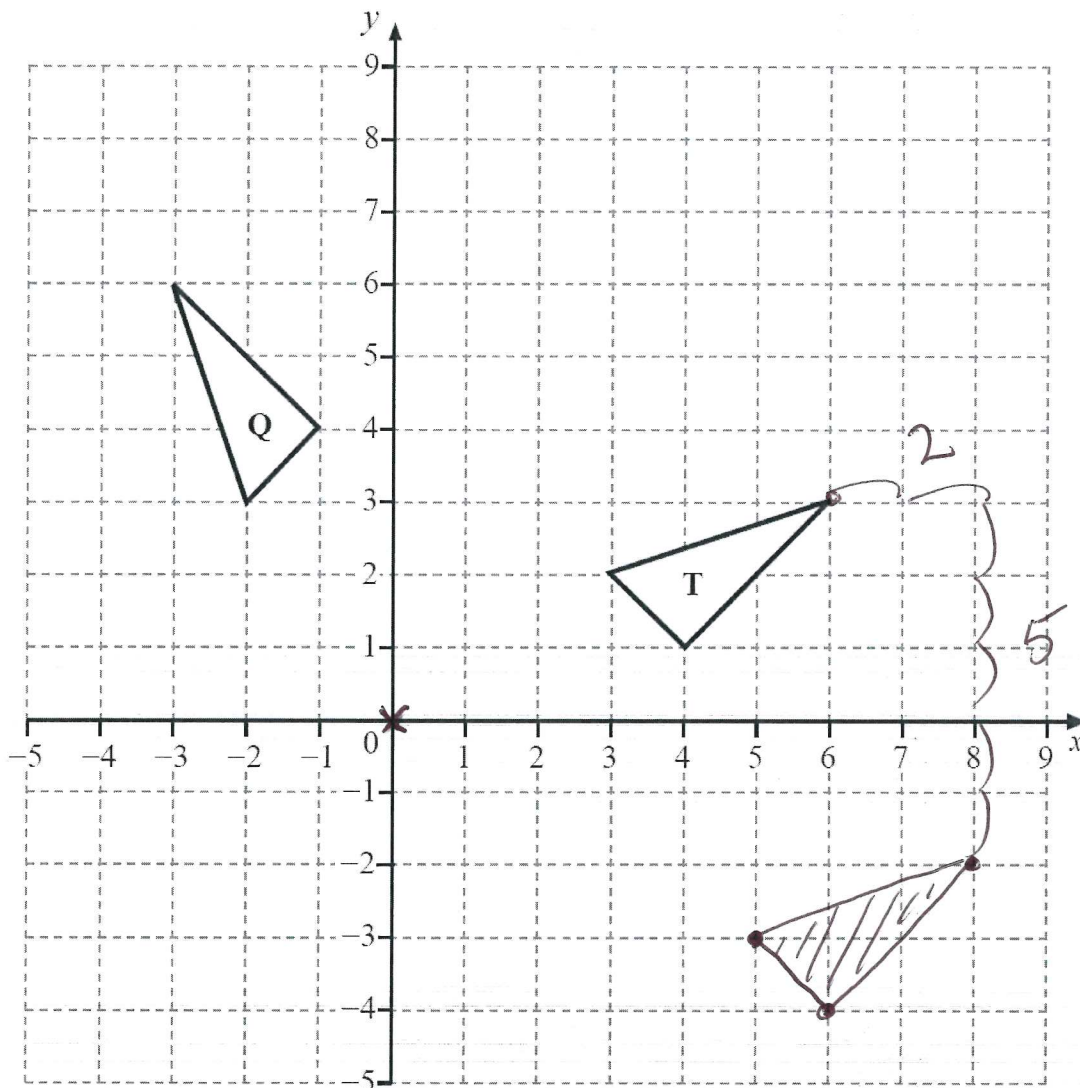


M8 = 19 days to go!

1



(a) Describe fully the **single** transformation which maps triangle T onto triangle Q.

Answer Rotation 90° anti-clockwise around $(0,0)$ [3]

\triangle
 \triangle
 \triangle

(b) On the grid, draw the image of triangle T after a translation $\begin{pmatrix} 2 \\ -5 \end{pmatrix}$. [2]

$\begin{pmatrix} 2 \\ -5 \end{pmatrix}$

 \longleftrightarrow
 \updownarrow

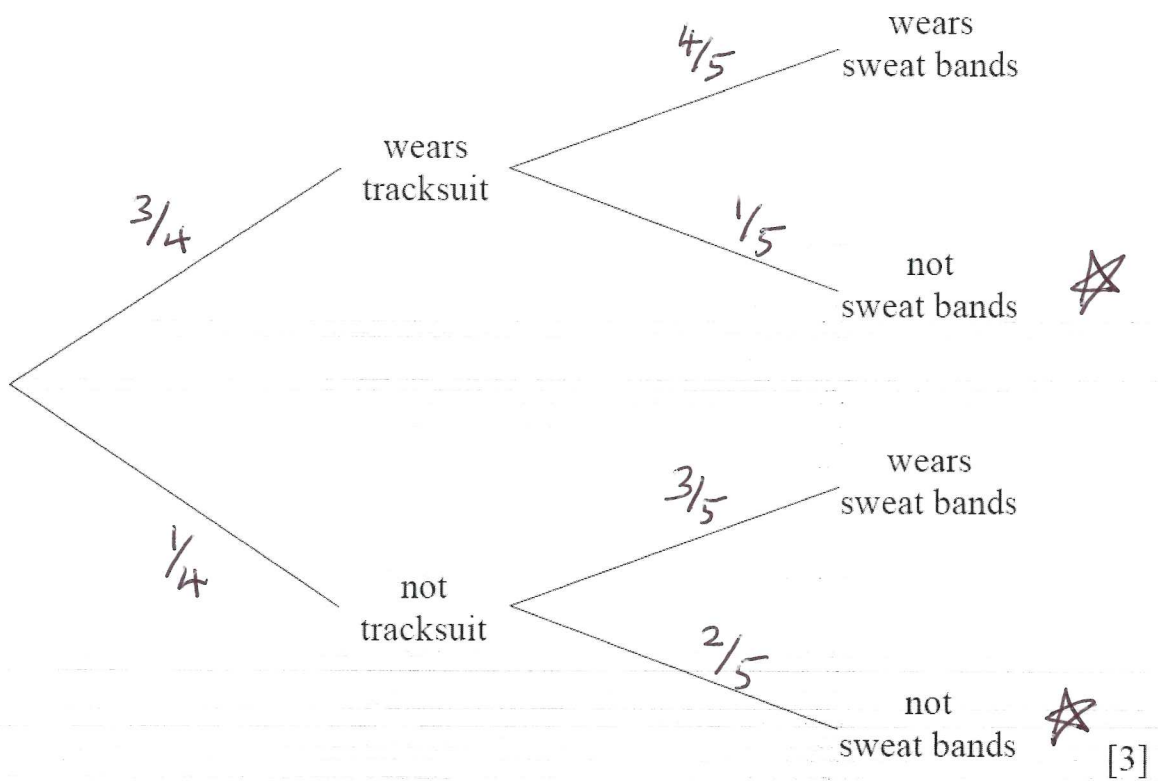
 $2 \rightarrow$
 $5 \downarrow$

7 When Jan goes to the gym, the probability that she wears a tracksuit is $\frac{3}{4}$

When she wears a tracksuit, the probability that she wears sweat bands is $\frac{4}{5}$

When she does not wear a tracksuit, the probability that she wears sweat bands is $\frac{3}{5}$

(a) Complete the tree diagram.



(b) Calculate the probability that Jan does not wear sweat bands.

$$\begin{array}{l}
 \text{Tracksuit AND not sweat} \quad \text{OR} \quad \text{not tracksuit AND not sweat} \\
 \frac{3}{4} \times \frac{1}{5} \quad + \quad \frac{1}{4} \times \frac{2}{5} \\
 \frac{3}{20} \quad + \quad \frac{2}{20} \\
 \text{Answer } \underline{\underline{\frac{5}{20}}} \quad [2]
 \end{array}$$