GCSE Maths homework sheet (higher) Week 16

1. The shape ABCD has corners at the following coördinates:

A (2, 3) B (4, 2) C (6, 1) D (4, 3)

(b) Apply an enlargement factor of 2·5 to the shape ABCDE, from a focus at the origin, to produce the shape EFGH. Write the coördinates of the corners here:

E (,) F (,) G (,) H (,) (2)

(c) Apply an enlargement factor of –1·5 to the shape ABCDE, from a focus at the point (1, 2), to produce the shape WXYZ. Write the coördinates of the corners here:

W (,) X (,) Y (,) Z (,) (4)

(d) Reflect the shape EFGH in the *x* axis, to produce the shape JKLM. Write the coördinates of the corners here:

J (,) K (,) L (,) M (,) (2)

(e) Reflect the shape JKLM in the *y* axis, to produce the shape PQRS.

P (,) Q (,) R (,) S (,) (2)

(f) Fully describe the single transformation which would move ABCD to PQRS:

. . . . . (2)

(g) Apply the translation vector $\begin{pmatrix} -3{\cdot}4 \\ 1{\cdot}7 \end{pmatrix}$ to shape ABCDE. Write the resultingcoördinates here:

(,) (,) (,) (,) (3)

Divide your marks by 15, then multiply by 100 to get a percentage. Write the percentage here, to 2 significant figures: . . . . . %