

Name	
Form	
Teacher	

**Maths**

**Homework Booklet**

**Year 9 Summer 1**

**Set 4,5**

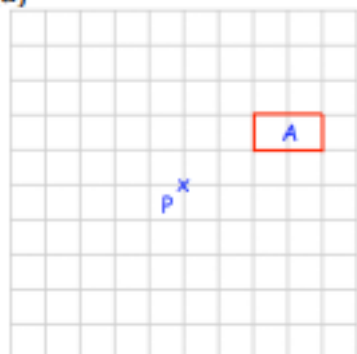
Topic	Score achieved	Sparx %
1. Rotations	/6	%
2. Reflections	/6	%
3. Translations	/6	%
4. Enlargements	/6	%
5. Percentages of amounts	/16	%



# Week 1

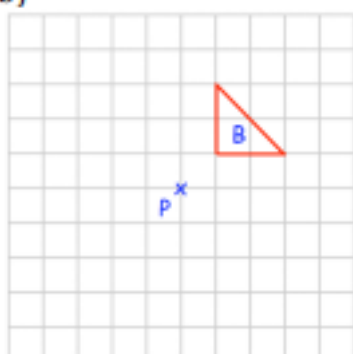
Question 1: Rotate each of the shapes below as instructed, using P as the centre of rotation.

(a)



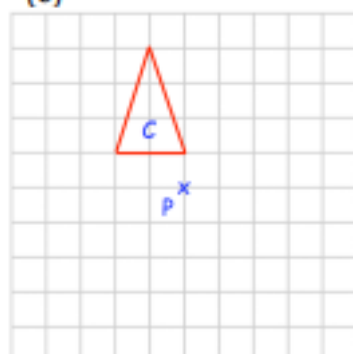
rotate  $90^\circ$  clockwise about P

(b)



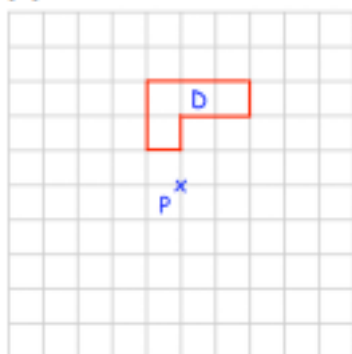
rotate  $90^\circ$  anticlockwise about P

(c)



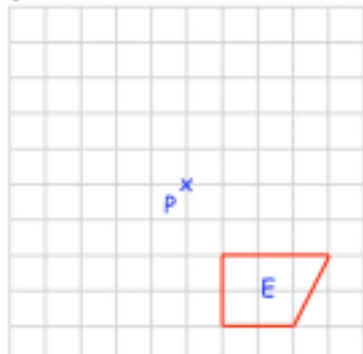
rotate  $90^\circ$  clockwise about P

(d)



rotate  $180^\circ$  about P

(e)



rotate  $90^\circ$  anticlockwise about P

(f)



rotate  $180^\circ$  about P

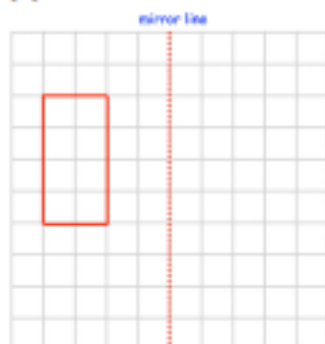
Sparx – Homework Answers



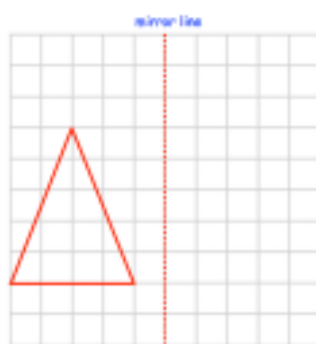
# Week 2

Question 1: Reflect each shape in the mirror line given

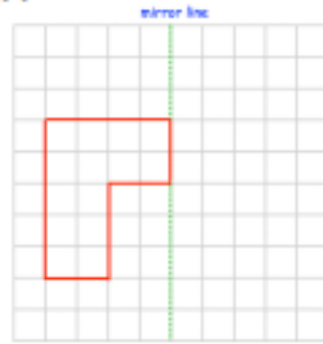
(a)



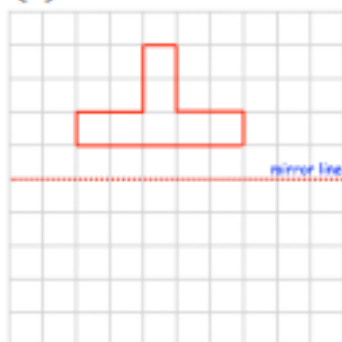
(b)



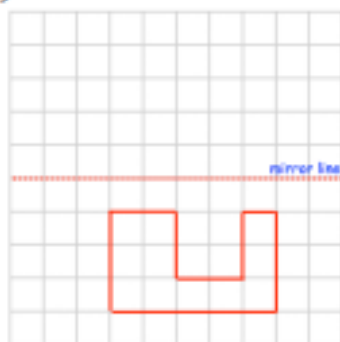
(c)



(d)



(e)



(f)



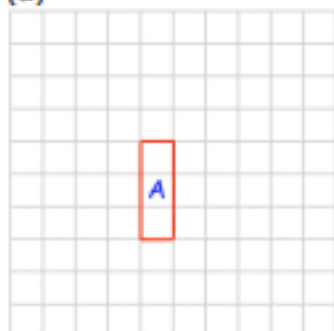
Sparx – Homework Answers



## Week 3

Question 1: Translate each of the shapes below as instructed.

(a)



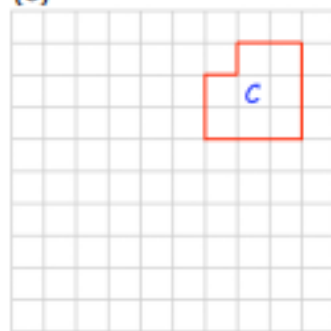
Translate A by  $\begin{pmatrix} 3 \\ 1 \end{pmatrix}$

(b)



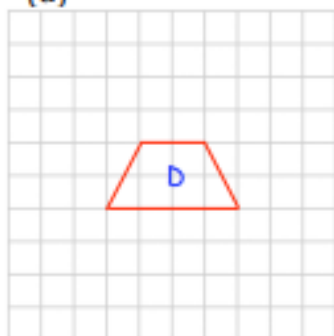
Translate B by  $\begin{pmatrix} 2 \\ -2 \end{pmatrix}$

(c)



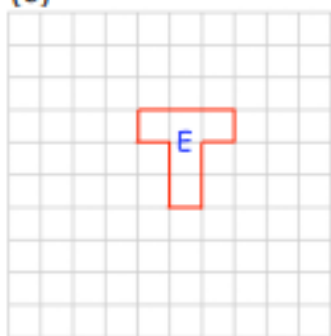
Translate C by  $\begin{pmatrix} 0 \\ -5 \end{pmatrix}$

(d)



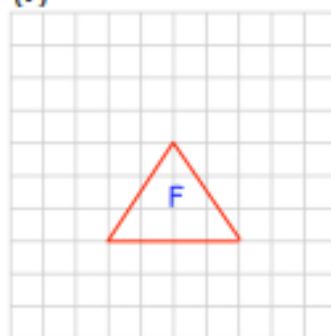
Translate D by  $\begin{pmatrix} -3 \\ 3 \end{pmatrix}$

(e)



Translate E by  $\begin{pmatrix} -2 \\ -4 \end{pmatrix}$

(f)



Translate F by  $\begin{pmatrix} 1.5 \\ 0 \end{pmatrix}$

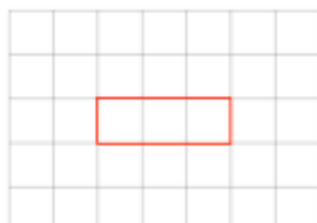
Sparx – Homework Answers



## Week 4

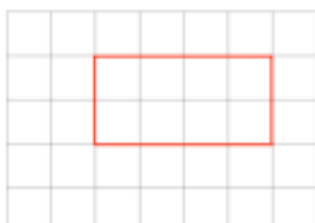
Question 1: Copy these shapes and then enlarge by the scale factor given.

(a)



Enlarge by scale factor 3

(b)



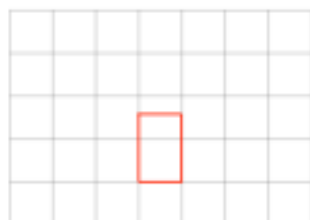
Enlarge by scale factor 2

(c)



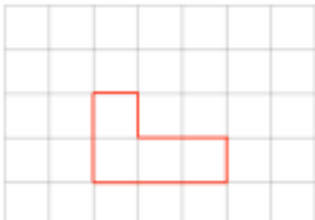
Enlarge by scale factor 3

(d)



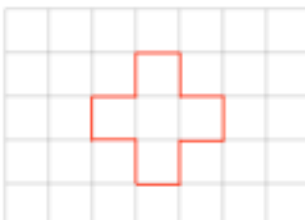
Enlarge by scale factor 4

(e)



Enlarge by scale factor 2

(f)



Enlarge by scale factor 4



Sparx – Homework Answers



## Week 5

Question 1: Work out the following

- |                 |                       |                    |                   |
|-----------------|-----------------------|--------------------|-------------------|
| (a) 10% of 70m  | (b) 25% of 16 seconds | (c) 10% of 400kg   | (d) 50% of 26g    |
| (e) 75% of 40ml | (f) 1% of £300        | (g) 25% of 36 days | (h) 50% of 9 days |
| (i) 75% of 24p  | (j) 25% of £18        | (k) 1% of \$6300   | (l) 10% of £7     |
| (m) 1% of 60m   | (n) 75% of 8 miles    | (o) 1% of 80kg     | (p) 50% of 1.6km  |

Sparx – Homework Answers