## Topic test 1 (20 minutes)

## Transformations - Foundation

1(a) Translate the shape so that point $A$ moves to point $B$.

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | $A$ |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | $B$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

1(b) Write the vector for this translation.

Answer

$$
()
$$

1(c) Circle the word that describes the two shapes.

Similar
Congruent
Enlargement
Corresponding

2(a) Write down the scale factor of the enlargement from shape $A$ to shape $B$.

Answer


2(b) Robert enlarges shape B.
The longest side in his enlargement is 4.5 squares.
What is the scale factor of Robert's enlargement?

Answer

2(c) In shape $A$, what is the ration of the longest side length to the shortest side length? Circle your answer.
$2: 1$
$1: 3$
$5: 1$
$3: 1$

3 Rotate the triangle $180^{\circ}$ about the point C.


4 Reflect the shape in the line $y=-1$
[2 marks]



5(a) Translate rectangle A by $\binom{-4}{1}$
Label your answer B.

5(b) Rotate rectangle A $90^{\circ}$ clockwise about the origin.
Label your answer C.

5(c) Enlarge rectangle A by scale factor 2, centre (2, -2 )
Label your answer D.

5(d) Rectangle $A$ is transformed into shape $E$ by a reflection.
Write down the equation of the mirror line.

Answer

5(e) Shape A can also be transformed to shape E using two different transformations.
Write down these two transformations in the correct order.

Transformation 1: $\qquad$
$\qquad$

Transformation 2: $\qquad$
$\qquad$

6 Here are some statements about transformations.
Tick a box to show whether each statement is true or false

| Statement | True | False |
| :---: | :---: | :---: |
| The image of a translation is congruent to the original |  |  |
| The image of an enlargement is congruent to the original |  |  |
| The only transformations that produce an image congruent to the <br> original are reflections and rotation |  |  |

