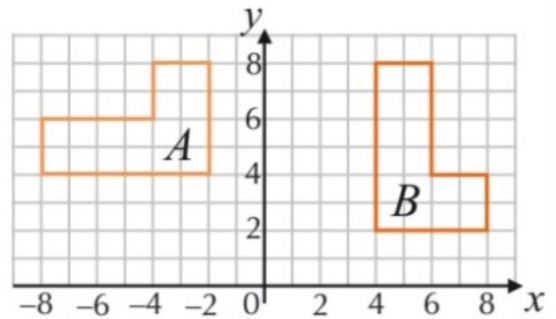Name - _ _ _ _ _ _ _ _

Start time - _ _ : _ _

End time - _ _ : _ _

## Solve the following

1.  The triangle ABC has vertices A(−2, 1), B(−2, 6) and C(4, 1).
    a) Draw the triangle on a pair of axes with x-values from -4 to 8 and y-values from -6 to 6.
    b) Rotate the triangle a quarter-turn clockwise about (5, 4). Label the image $A_1$ , $B_1$ , $C_1$
    c) Write down the coordinates of $A_1$ , $B_1$ , and $C_1$.

2.  The triangle DEF has coordinates D(-2, −2), E(-2, 5) and F(3, 5). DEF is rotated a half-turn about (2, 0) to create the image $D_1$ , $E_1$ , $F_1$. Find the coordinates of $D_1$ , $E_1$ , $F_1$.

3.  Describe fully the rotation that transforms shape A to shape B.



4.  The triangle UVW has vertices U(1, 1), V(3, 5) and W(−1, 3). The triangle XYZ has vertices X(-2, 4), Y(-6, 6) and Z(-4, 2).
    a) Draw the two triangles on a pair of axes.
    b) Describe fully the transformation that maps UVW to XYZ.

5.  (i) Describe fully the transformation that maps shape A to shape B.
    (ii) Describe fully the transformation that maps shape C to shape D.



1   2   3   4   5   6   7   8   9