1. Use these three segments:

$\overline{AB}$ $A(-4,3)$ $B(8,-5)$

$\overline{CD}$ $C(0,-4)$ $D(6,5)$

$\overline{EF}$ $E(1,5)$ $F(11,1)$

Which two segments are perpendicular?

2. Given $\triangle ABC$ has the following coordinates:

$A(0,-2)$ $B(-3,-2)$ $C(-2,-4)$

Give the coordinates of the image of $\triangle ABC$ after each transformation.

a) Reflect $\triangle ABC$ over the x-axis.

$A'(\quad,\quad)$ $B'(\quad,\quad)$ $C'(\quad,\quad)$

b) Reflect $\triangle ABC$ over the line $x = 1$

$A'(\quad,\quad)$ $B'(\quad,\quad)$ $C'(\quad,\quad)$

c) Rotate $\triangle ABC$ $90°$ CCW

$A'(\quad,\quad)$ $B'(\quad,\quad)$ $C'(\quad,\quad)$

d) Rotate $\triangle ABC$ $180°$

$A'(\quad,\quad)$ $B'(\quad,\quad)$ $C'(\quad,\quad)$

e) Translate $\triangle ABC$ 5 units right and 3units up.

$A'(\quad,\quad)$ $B'(\quad,\quad)$ $C'(\quad,\quad)$