(C1-5.4a) Name:

Homework Questions 4 – Finding the Equation of a Line given Two points

1. Find the equation of the line AB which passes through the points A(3,7) B(2,5)

Ans $y = 2x + 1$

2. Find the equation of the line CD which passes through the points C(9,8) D(3,5)

Ans $2y = x + 7$

3. Find the equation of the line EG, given the points E(2,10) F(3,15) and G(1,6)

Ans $y = 4x + 2$

4. The line that passes through (10, 5) and (4,1) meets the x-axis at point H. Find the coordinates of point H.

Ans (2.5, 0)

5. The line that passes through (1,10) and (3,7) meets the y=axis at point J. Find the coordinates of point J.

Ans (0, 11.5)

6. The lines y=x-3 and y=2x-6 intersect at point T. Point W has coordinates (10,-2). Find the point of intersection of the two lines (T) and hence find the equation of the line joining T and W.

Ans $2x + 7y - 6 = 0$

7. Find the equation of the line that cuts the x-axis at 4 and the y-axis at -2.

Ans $x - 2y - 4 = 0$

8. The vertices of a triangle ABC have coordinate A(3,5) B(4,8) and C(6,12). Find the equations of the sides AB and BC

Ans $y = 3x - 4$

$y = 2x$