Finding Equations from Two Points

Find the gradients and equations of the straight lines through these pairs of points. Give your answers in the form $y = mx + c$

(a) (0, 0) and (2, 8)

(b) (0, 0) and (8, 2)

(c) (3, 0) and (5, 6)

(d) (3, 0) and (5, 5)

(e) (0, 8) and (4, 0)

(f) (1, 5) and (3, 1)

Find the gradients and equations of the straight lines through these pairs of points. Give your answers in the form $ax + by = c$ where a, b and c are integers.

(a) (0, 0) and (4, 2)

(b) (0, 1) and (4, 3)

(g) (0, 1) and (3, 2)

(h) (3, 3) and (9, -3)

(i) (2, 4) and (-2, 16)

(j) (4, 4) and (-8,-2)

A line L passes through the points A (2, 5) and B (4, 9). Find the equation of the line.

Another line M is perpendicular to line L and passes through B. Find the equation of this line.

A straight line passes through the points (-4, 7), (6, -5) and (8, t). Use an algebraic method to find the value of t.