Finding the Gradient and y-Intercept

Find the gradient and the coordinates of the y-intercept for the straight lines given by these equations:

(a) $y = 2x + 1$ (b) $y = 2x + 3$

(c) $y = 3x + 2$ (d) $y = -3x + 2$

(e) $y = -3x - 2$ (f) $y = -3x - 7$

(g) $y = -3x$ (h) $y = 5x$

(a) $m = 2$ $(0,1)$
(b) $m = 2$ $(0,3)$
(c) $m = 3$ $(0,2)$
(d) $m = -3$ $(0,2)$
(e) $m = -3$ $(0,-2)$
(f) $m = -3$ $(0,-7)$
(g) $m = -3$ $(0,0)$
(h) $m = 5$ $(0,0)$

Find the gradient and the coordinates of the y-intercept for the straight lines given by these equations:

(a) $y = x + 1$ (b) $y = x - 5$

(c) $y = -x + 5$ (d) $y = \frac{1}{2}x + 2$

(e) $y = -\frac{1}{2}x + 5$ (f) $y = \frac{1}{3}x - 6$

(g) $y = -\frac{2}{3}x$ (h) $y = -\frac{2}{3}x + \frac{5}{3}$

(a) $m = 1$ $(0,1)$
(b) $m = 1$ $(0,-5)$
(c) $m = -1$ $(0,5)$
(d) $m = \frac{1}{2}$ $(0,2)$
(e) $m = -\frac{1}{2}$ $(0,5)$
(f) $m = \frac{1}{3}$ $(0,-6)$
(g) $m = -\frac{2}{3}$ $(0,0)$
(h) $m = -\frac{2}{3}$ $(0,\frac{5}{3})$

Find the gradient and the coordinates of the y-intercept for the straight lines given by these equations:

(a) $y = 1 + 2x$ (b) $y = 1 - 2x$

(c) $y = 5 + 2x$ (d) $y = -5 + 2x$

(e) $y = 7 - \frac{1}{2}x$ (f) $y = -6 + \frac{2}{3}x$

(a) $m = 2$ $(0,1)$
(b) $m = -2$ $(0,1)$
(c) $m = 2$ $(0,5)$
(d) $m = 2$ $(0,-5)$
(e) $m = -\frac{1}{2}$ $(0,7)$
(f) $m = \frac{2}{3}$ $(0,-6)$

Write down the equations of each straight line, given the following information:

(a) The gradient is 5 and the coordinates of the y-intercept are (0, 7).

(b) The gradient is -1 and the coordinates of the y-intercept are (0, 9).

(c) The gradient is $\frac{3}{4}$ and the coordinates of the y-intercept are (0, 0).

(a) $y = 5x + 7$
(b) $y = -x + 9$
(c) $y = \frac{3}{4}x$