Finding the Equation of a Straight Line from the Gradient and a Point

(a) Find the equation of the line with gradient 7 that passes through (1, 3)
(b) Find the equation of the line with gradient -2 that passes through (4, 3)
(c) Find the equation of the line with gradient 2 that passes through (1, -4)
(d) Find the equation of the line with gradient -3 that passes through (-1, 6)

(a) $y = 7x - 4$
(b) $y = -2x + 11$
(c) $y = 2x - 6$
(d) $y = -3x + 3$

(e) Find the equation of a line which is parallel to $y = 2x + 1$ and passes through (3, 1).
(f) Find the equation of a line which is parallel to $y = 3x + 1$ and passes through (6, 10).
(g) Find the equation of a line which is parallel to $y = 5x - 2$ and passes through (5, 7).
(h) Find the equation of a line which is parallel to $y = 4x - 7$ and passes through (4, -3).

(e) $y = 2x - 5$
(f) $y = 3x - 8$
(g) $y = 5x - 18$
(h) $y = 4x - 19$

(i) Find the equation of a line which is perpendicular to $y = 2x + 6$ and passes through (6, 4).
(j) Find the equation of a line which is perpendicular to $y = -4x + 7$ and passes through (12, 15).
(k) Find the equation of a line which is perpendicular to $y = \frac{1}{5}x + 6$ and passes through (3, 1).
(l) Find the equation of a line which is perpendicular to $y = -\frac{1}{6}x + 3$ and passes through (2, 10).

(i) $y = -\frac{1}{2}x + 7$
(j) $y = \frac{1}{4}x + 12$
(k) $y = -5x + 16$
(l) $y = 6x - 2$