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)

(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).

(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).

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