The equation $y = mx + c$

C 1. Find the gradient and y-intercept of the lines with the equations

a) $y = 3x + 7$ b) $y = 5x - 4$ c) $y = \frac{1}{3}x + 5$

d) $y = -2x + 1$ e) $y = -x - 3$ f) $y = 9 - 4x$

g) $y - 8x = 1$ h) $y + 3x = 5$ i) $6x - y = 3$

j) $2y + 8x = 4$ k) $3y - 9x = 15$ l) $2x + 5y = 20$

m) $4x - 3y = 12$ n) $4x + y - 6 = 0$ o) $5x - 7y - 2 = 0$

C 2. A line which passes through the point (0, 4) has gradient 5.
Write down the equation of the line.

C 3. A line which passes through the point (0, 2) has gradient -2.
Write down the equation of the line.

A 4. The gradient of a line is 3. The point with coordinates (4, 2) lies on the line.
Find the equation of the line.

A 5. A line which passes through the point (4, 23) has gradient 4.
Write down the equation of the line.

A 6. The gradient of a line is -1. The point with coordinates (5, -1) lies on the line.
Find the equation of the line.

A 7. A line passes through the points with coordinates (1, 3) and (2, 8).
Find the equation of the line.

A 8. A line passes through the points with coordinates (2, 11) and (5, 23).
Find the equation of the line.

A 9. Find the equation of the line which passes through (6, 1) and (8, 9).

A 10. A line passes through the points with coordinates (3, 5) and (-3, -7).
Find the equation of the line.

A 11. A line passes through the points with coordinates (5, -3) and (8, -9).
Find the equation of the line.

A 12. Find the equation of the line which passes through (-4, 2) and (1, 1).