Graphs

Question 1

Taking m as the gradient and c as the y-axis intercept, find the equation of the following lines:

a) $m = 2,\ c = 1$

b) $m = 1,\ c = 4$

c) $m = 3,\ c = -3$

d) $m = 5,\ c = -2$

e) $m = -1,\ c = 1$

f) $m = -4,\ c = -8$

g) $m = -6,\ c = 5$

h) $m = \frac{1}{2},\ c = 2$

i) $m = \frac{1}{3},\ c = \frac{2}{3}$

j) $m = \frac{2}{3},\ c = 1$

Graphs

Question 2

Find the gradient and the intercept of the following linear functions:

a) $y = 5x + 1$

b) $y = 2x + 6$

c) $y = 3x + 2$

d) $y = x + 8$

e) $y = x - 10$

f) $y = 4x - 1$

g) $y = 3x - 5$

h) $y = 2x$

i) $y = -4x + 2$

j) $y = -7x + 1$

k) $y = -3x - 2$

l) $2y = 6x - 5$

m) $2y = -3x + 4$

n) $3y = 6x + 10$

o) $5y = x - 2$

Graphs

Question 3

Find the gradient and the intercept of the following linear functions:

a) $y = 1 - 2x$

b) $y = -5 + 3x$

c) $y = 3 - x$

d) $y = -4 + 2x$

e) $y = 12 - 2x$

f) $y = -1 - 7x$

g) $y + 1 = 3x$

h) $y + 3 = x$

i) $y + 6 = 4x$

j) $y - 8 = 6x$

k) $y - 16 = 2x$

l) $2y = 4x + 2$

m) $4y + 1 = 3x + 6$

n) $y - 1 = -7x + 10$

o) $y - x - 6 = 0$

p) $3y - 6x - 2 = 0$

q) $2y + 5x = 0$

r) $\frac{1}{2}y = 5x + 2$

s) $\frac{1}{3}y + 4 = 5x + 11$

Graphs

Question 4

Find the equation of the line that crosses the *y*-axis at ..

a) (0,1) and is parallel to $y = 2x$

b) (0,5) and is parallel to $y = x$

c) (0,2) and is parallel to $y = 5x$

d) $(0, -1)$ and is parallel to $y = 3x + 3$

e) $(0, -3)$ and is parallel to $y = 7x + 2$

f) $(0, -4)$ and is parallel to $y = 2x + 4$

Question 5

Which of the following lines are parallel?

a) $y = 4x + 2$

b) $8x + 1 - 2y = 0$

c) $2y - 4x = 2$

d) $2 - y = 4x$

Question 6

Which of the following lines are perpendicular?

a) $y = x + 3$

b) $y = 2x + 5$

c) $2y + x = 6$

d) $2y = x + 2$