

Linear Functions Exercise

- For each equation below, state the gradient and the y-intercept
 - $y = 4x - 1$
 - $y = -3x + 2$
 - $y = x + 4$
 - $y = -x - 9$
 - $y = 3x$
 - $y = -6x$
 - $y = -x + 5$
 - $y = 4 + 6x$
 - $y = -2 + x$
 - $y = 3 - 4x$
 - $y = 2 - x$
 - $y = -x$
 - $y = 3$
 - $y = 0$
- Write the equation of each linear function if
 - gradient = 2 and y-intercept = 4
 - gradient = -3 and y-intercept = 5
 - gradient = 6 and y-intercept = -1
 - gradient = 1 and y-intercept = 3
 - gradient = -1 and y-intercept = -3
 - gradient = 3 and y-intercept = 0
 - gradient = 1 and y-intercept = 0
 - gradient = -1 and y-intercept = 0
 - gradient = 0 and y-intercept = 3
 - gradient = 0 and y-intercept = 0
- Write each of these numbers as a fraction
 - 4
 - 3
 - 1
 - 0
- Find the gradient of the line joining
 - A(5, 2) and B(6, 7)
 - A(-3, 1) and B(1, -4)
 - A(5, -2) and B(0, -1)
 - A(3, 0) and B(0, 6)
 - A(4, -2) and B(4, -1)
 - A(3, 0) and B(-4, 0)
- Find the coordinates of four points labelled A, B, C and D such that AB is parallel to CD.
- Find the coordinates of four points labelled A, B, C and D such that AB is perpendicular to CD.
- Without making a table of values, sketch the graph of
 - $y = 4x - 1$
 - $y = -3x + 2$
 - $y = x + 4$
 - $y = -x - 2$
 - $y = 3x$
 - $y = -6x$
 - $y = -x + 5$
 - $y = 4 + 6x$
 - $y = -2 + x$
 - $y = 3 - 4x$
 - $y = 2 - x$
 - $y = -x$
 - $y = 3$
 - $y = 0$