

Lesson 1: Characteristics of Linear Functions

GOAL:

To describe the characteristics of a linear function including:

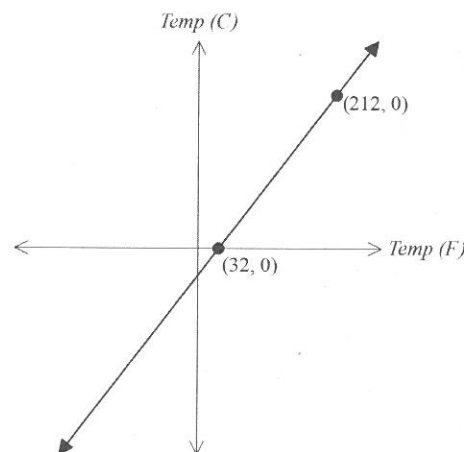
- Leading coefficient
- Slope
- End Behaviour
- y -intercept
- x -intercept
- Domain and Range

Equations that have straight line graphs are called linear equations. Sometimes these are referred to as *linear functions*.

Functions can be used to describe relationships between quantities.

In a previous lesson, we entered temperature information into our calculators and used the linear regression function. We saw that the equation $y = 0.556x - 17.778$ could be used to show the relationship between the temperature in degrees Fahrenheit vs the temperature in degrees Celsius.

Temperature ($^{\circ}\text{F}$) x	Equivalent Temperature ($^{\circ}\text{C}$) y
32	0
212	100
77	25
100	37.8



In previous lessons we started with the *data table* and used the calculator to produce the equation and the graph. We now move on to questions where we start with *equation* and use the calculator to produce the data and the graph.