

Mathematics

Linear and non-linear graphs

Downloadable Resource

Mr Maseko

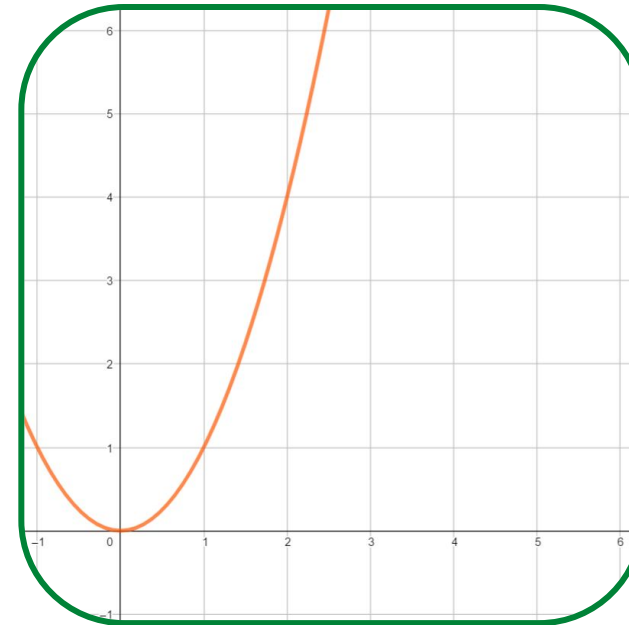
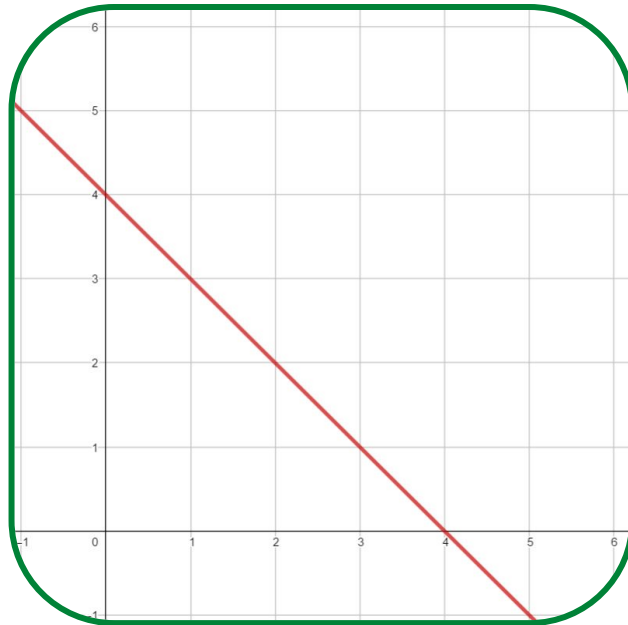
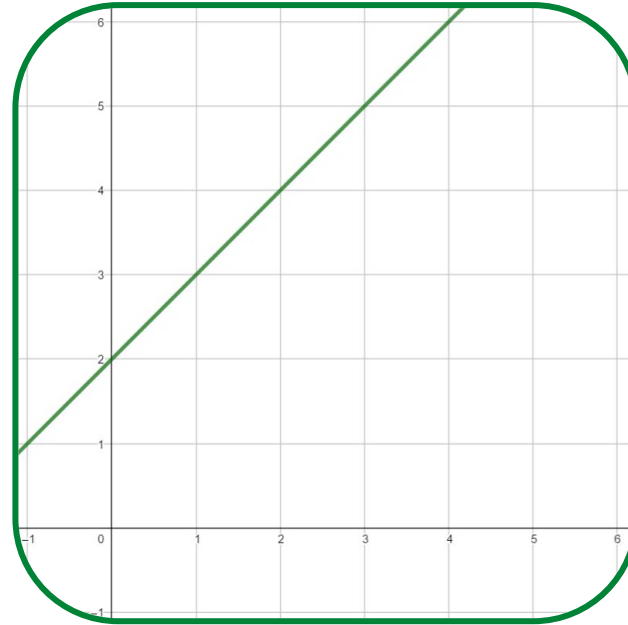
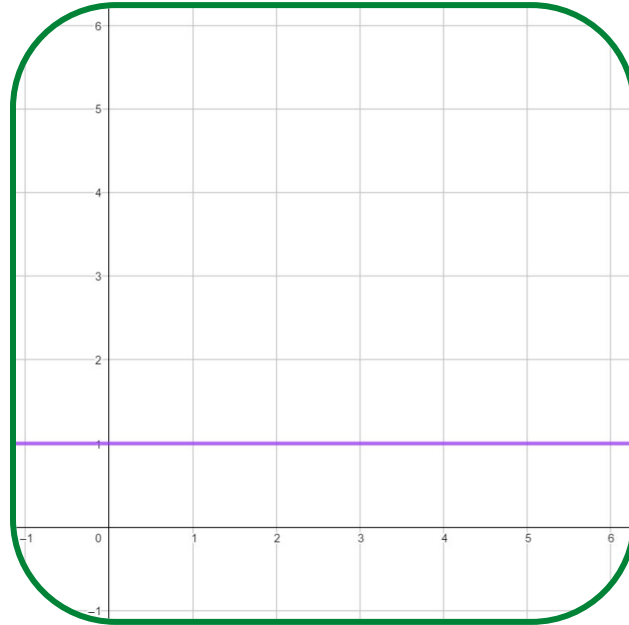


Try this

Find some similarities between characteristics of these graphs. Yasmin and Cala have made some of their observations

The red and orange graphs both have parts that tilt downwards

The purple and green graphs both go through $(-1, 1)$

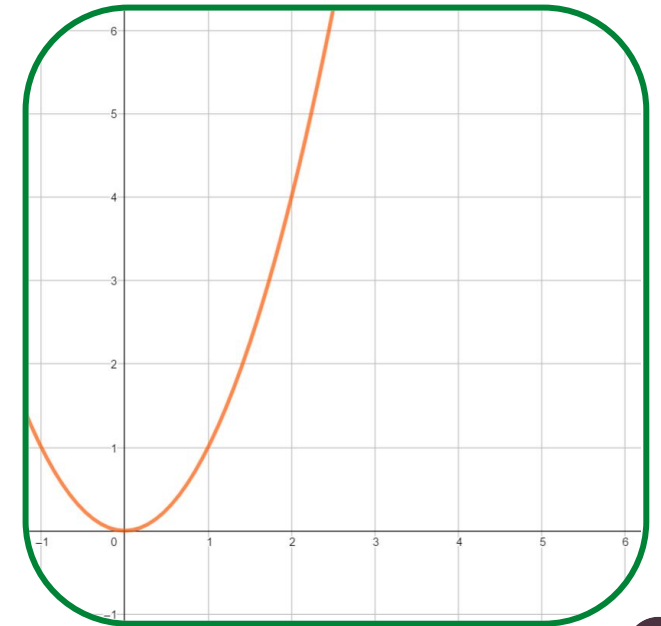
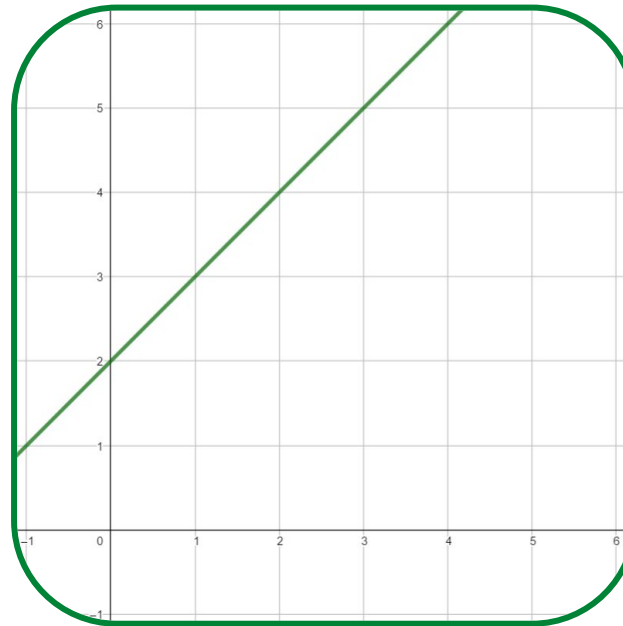
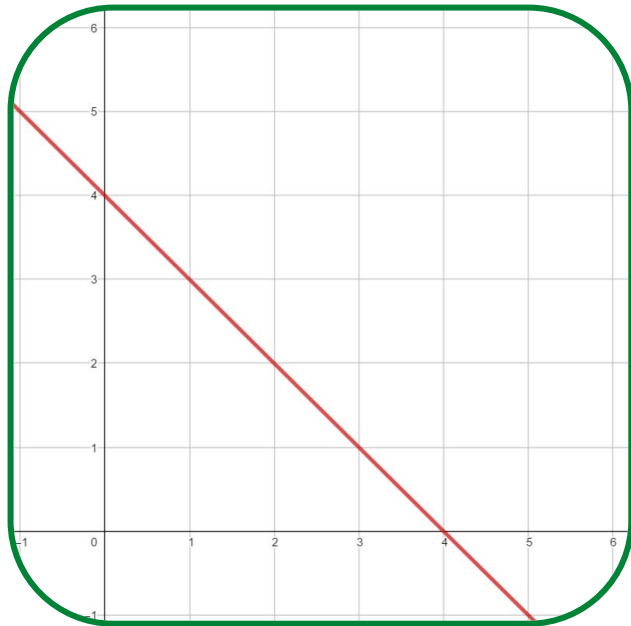
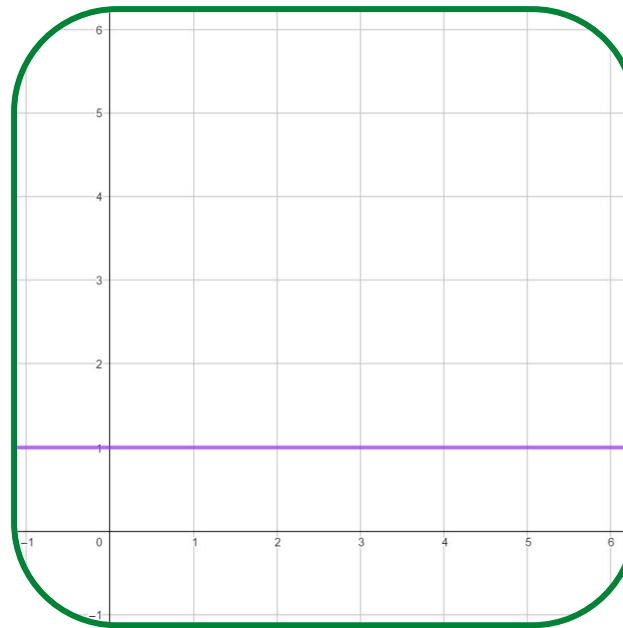


Connect

Linear graphs are **straight lines**

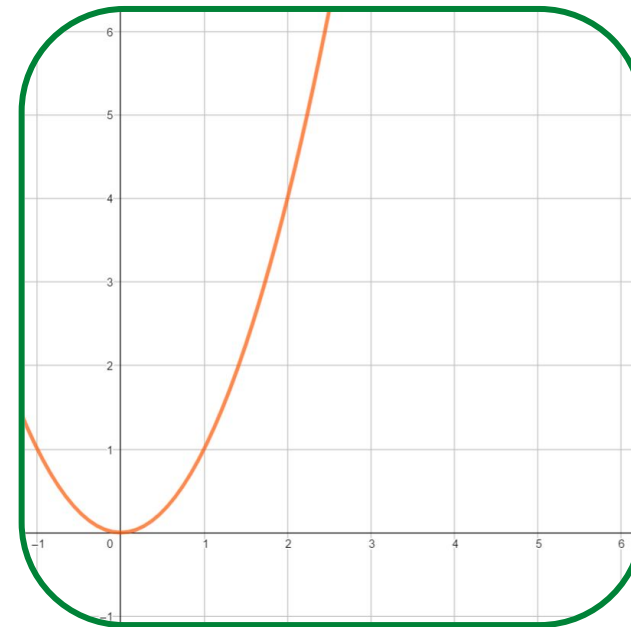
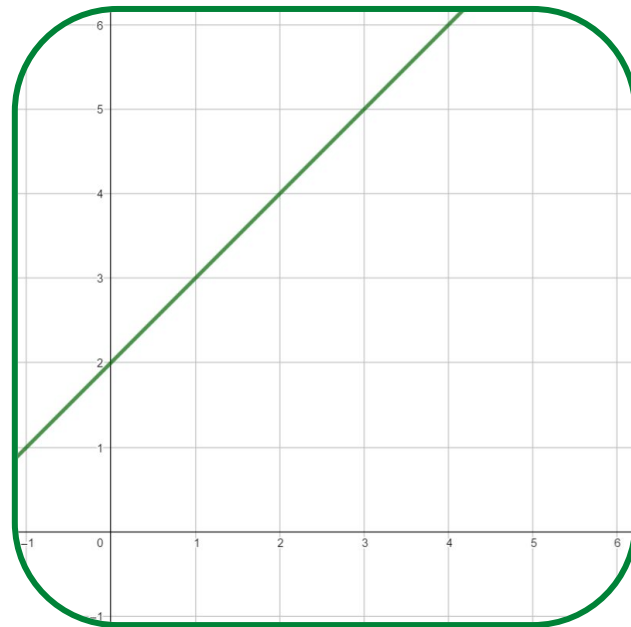
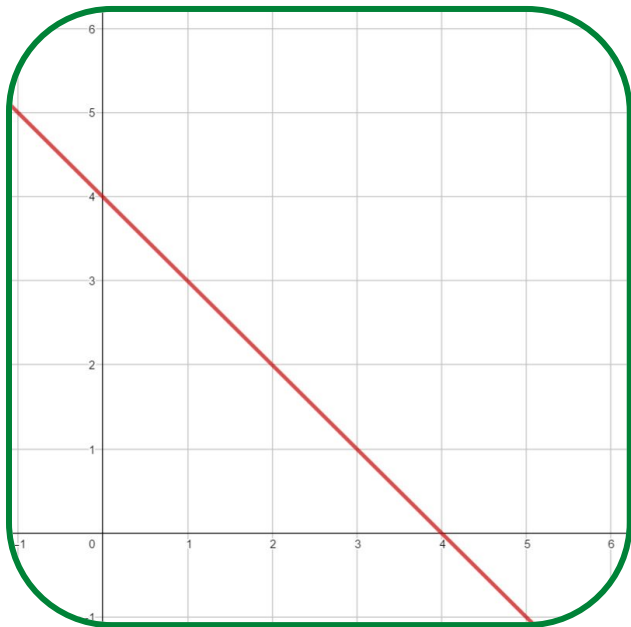
The green, purple and red lines are examples of linear graphs

The orange line is not a linear graph



Connect

By looking at coordinates on each of these graphs we can name them

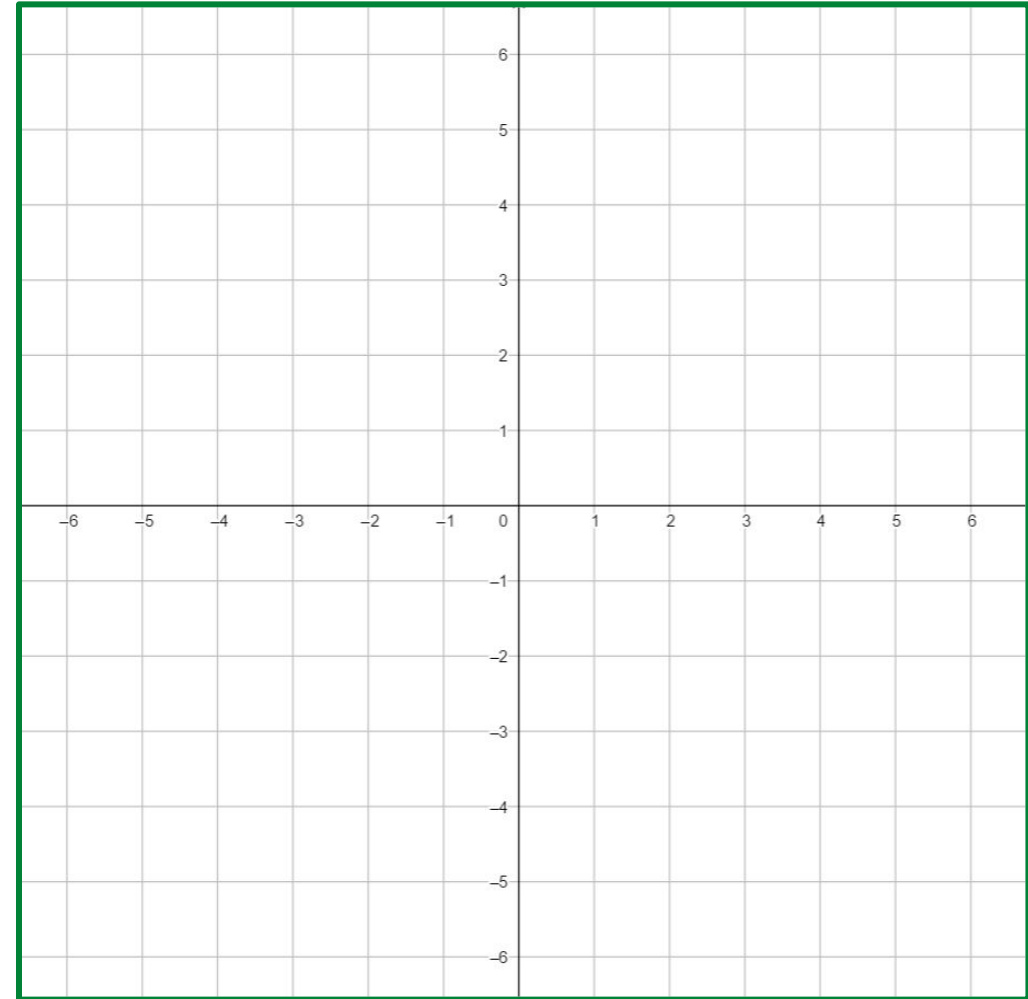


Independent task

Use the coordinate grid to help you with these questions

1. Give two sets of three coordinates that would lie on a linear graph

2. Give two coordinates that would lie on a linear graph with $(5,7)$ and $(8,10)$



Explore

$(0, 0)$ $(3, 9)$ $(4, -4)$

① Find some **linear** graphs that each of these points would lie on

② Can you find any **non-linear** graphs that each of these points would lie on

