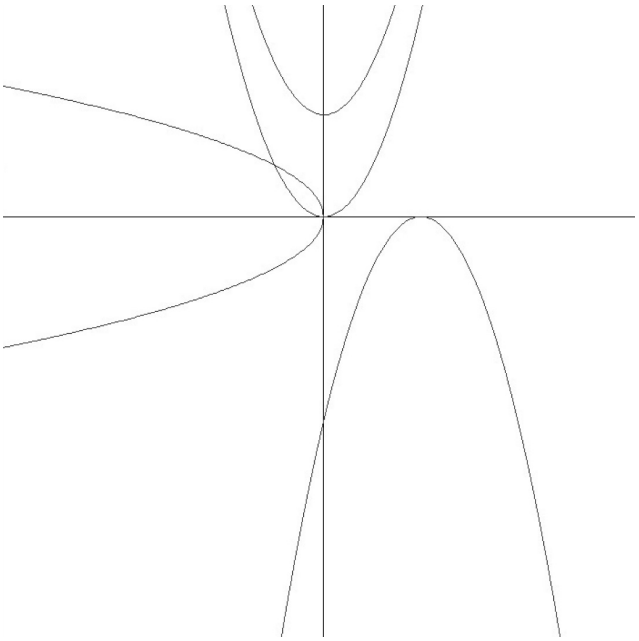
DESCRIBING TRANSFORMATIONS

STUDENT RESOURCE

- This diagram shows a set of curves that have characteristics in common.
  Describe what is 'the same' about the curves.
  Choose one of the curves and describe in words how you would have to transform it in order to superimpose it on each of the other three curves in turn.



- On your graph plotter draw the graph of $y = x^2$ and the graph of $y = x^2 + 3$.
  How would you describe the transformation you would need to do to the first graph to obtain the second?
  What happens if the constant is not 3?

- On your graph plotter draw the graph of $y = x^2$ and the graph of $y = (x + 1)^2$.
  How would you describe the transformation you would need to do to the first graph to obtain the second?
  What happens if the constant is not 1?

- On your graph plotter draw the graph of $y = x^2$ and the graph of $y = 2x^2$.
  How would you describe the transformation you would need to do to the first graph to obtain the second?
  What happens if the constant is not 2?