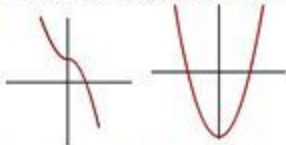
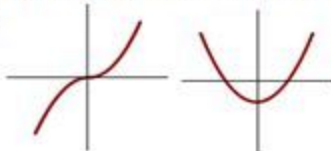


NOTES:

- The OUTSIDE of the brackets determines what happens to y
- The INSIDE of the brackets determines what happens to x
- If it's OUTSIDE, the line does what the equation says e.g. if it says $+4$ it will $+4$ on axis
- If it's INSIDE, the line does the *opposite* of what the equation says e.g. if it says $+4$ it will -4
- The HIGHER the number before x (gradient), the steeper and more "squeezed together" the curve is (nearer to the y axis)



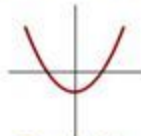
- The LOWER the number before x (gradient), the less steep and more "spread out" the curve is (further away from the y axis)



- So the number before x on a graph determines how wide the curve is
- The y intercept on a graph determines whether its curve goes up or down
- So



Linear



Quadratic



Cubic



Reciprocal

- The negative version of a positive line equation is when the number before x is negative. It is the same as the positive but FLIPPED OVER THE y AXIS. The line $y=(x)^2$ looks exactly the same as the line $y=(-x)^2$ because the y axis bisects the curve in half so the curve is symmetrical both sides. Therefore reflecting it in the y axis doesn't move the curve which means it stays the same.