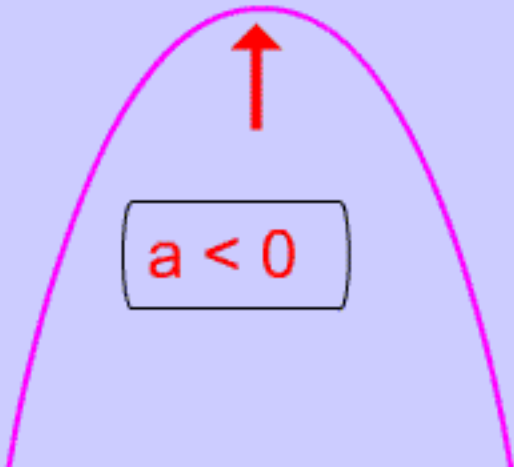
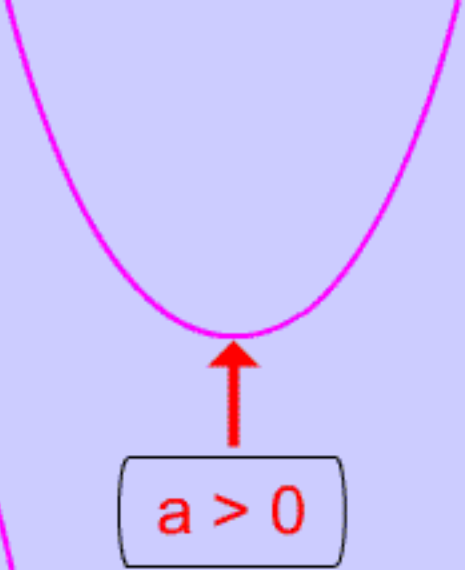




A diagram of a downward-opening parabola, representing a quadratic function where the leading coefficient a is negative. A red arrow points upwards from the vertex of the parabola.

$$a < 0$$



A diagram of an upward-opening parabola, representing a quadratic function where the leading coefficient a is positive. A red arrow points upwards from the vertex of the parabola.

$$a > 0$$