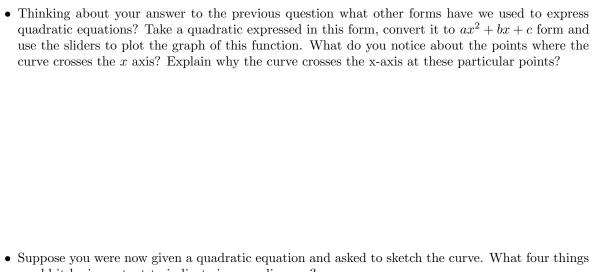


• Describe the shape of the quadratic curve. If $a=0$ is the equation still a quadratic

• Describe the shape of the curve when a > 0 and when a < 0.

• Consider a quadratic equation in which b = 0. What effect does changing the value of c have on the curve? What effect does changing the value of a have?

• If $f(x) = x^2$ then f(0) = 0. Setting a = 1 can you find values of b and c so that f(1) = 0, f(-1) = 0? Can you generalise this and write expressions for the coefficients b and c in terms of the α value for which $f(\alpha) = 0$? Can you find some form other than $ax^2 + bx + c$ in which we might write **these particular quadratics**?



would it be important to indicate in your diagram?

• Use the information in the textbook and describe how you would determine each of the four things that you identified in the previous question.