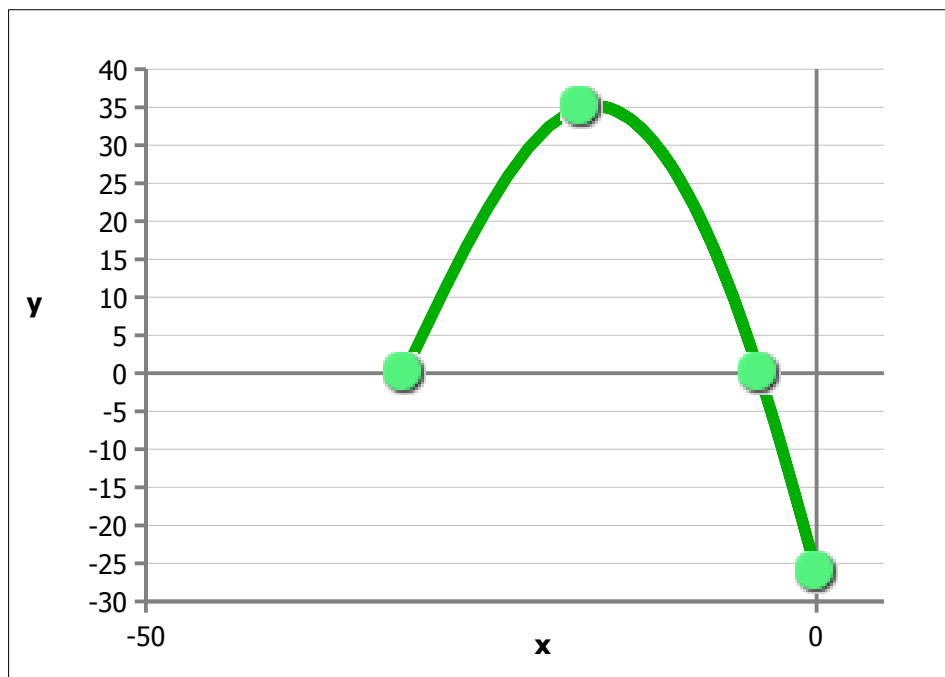


1. The arc of a ball is as seen in the following diagram and table:



x	y	Coordinates
-4.27	0	(-4.27, 0)
-17.5	35	(-17.5, 35)
0	-26.25	(0, -26.25)
-30.73	0	(-30.73, 0)

Write the equation of this parabolic arc: \_\_\_\_\_

- The points equidistant from a point form a \_\_\_\_\_.
- The points equidistant from two separate points form a \_\_\_\_\_.
- The points equidistant from a point and a line form a \_\_\_\_\_.
- Write the function  $f(x) = 4x^2 - 48x + 136$  in standard form: \_\_\_\_\_
- What are the coordinates of the vertex for  $f(x) = 4x^2 - 48x + 136$ ? ( \_\_\_\_\_ , \_\_\_\_\_ )
- What is the focus distance  $p$  for  $f(x) = 4x^2 - 48x + 136$ ?
- What are the coordinates of the focus for  $f(x) = 4x^2 - 48x + 136$ ? ( \_\_\_\_\_ , \_\_\_\_\_ )
- Make a rough sketch of the graph of the fourth degree function  $g(x) = (x^2 - 4)^2$