

# Functions and Graphs

*The purpose of these activities is to better understand functions and their graphs.  
But really to practice with Ximera.*

Every square has both a perimeter  $p$  and an area  $A$ . In other words, there is a relationship between the set of perimeters of squares and the set of areas of squares. Is this relationship a function?

**Exercise 1** If  $p = 20$ , then  $A = \boxed{25}$ .

**Hint:** What is the side length of a square with this perimeter?

**Exercise 2** If  $A = 36$  then  $p = \boxed{24}$ .

**Hint:** What is the side length?

**Solution** If the area is 36, then the side length must be 6, since  $6 \times 6 = 36$ . The perimeter is 4 times the side length, so the perimeter is 24.

**Question 3** Every square is also a 

rectangle

  
choice

This is the end of the activity. Really.