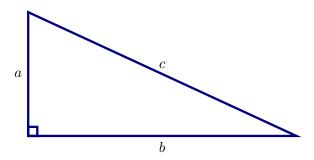
## First example

In this activity we see some examples.

To start we can have theorem environments:

**Theorem 1.** Given a right triangle drawn with TiKZ:



We have that:

$$a^2 + b^2 = c^2$$

As well as example environments.

Example 1. For example, this is an example.

There are exercises you can do:

Exercise 1 
$$3 \times 2 = \boxed{6}$$

Some exercises can have hints.

**Exercise 2** Given that  $r(v) = -2v^2 - 4v - 4$ , evaluate r(-0.4). Express your answer in decimal notation.

**Hint:** 
$$r(-0.4) = -2(-0.4)^2 - 4(-0.4) - 4.$$

**Hint:** 
$$r(-0.4) = -2.72$$
.

Learning outcomes: Understand a first example of the Ximera style. Have a nice basic example to work from.

The value of the function  $r(v) = -2v^2 - 4v - 4$ , evaluated at v = -0.4, is  $\boxed{-2.72}$ .

## **Question 3** What is the worst kind of cat?

Multiple Choice:

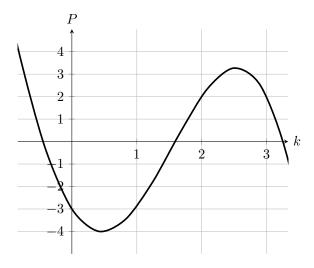
- (a) tabby
- (b) puppy ✓
- (c) dog√
- (d) kitten ✓
- (e) main coon √

Hint: It is not a cat or a type of cat.

**Hint:** It is a puppy!

It is also possible to have a list of questions which get shuffled:

**Question 4.1** In the plot below, is P a function of k?



First example

Multiple Choice:

- (a) Yes.  $\checkmark$
- (b) No. ✓

Hint: For each input, how many outputs are there?

Use the plot to compute P(2).

Hint: To start, find 2 on the horizontal axis.

**Hint:** Now from this position, move up or down until you reach the curve. The value of P(2) is the height of the curve at the point k=2.

The value of P(2) is  $\boxed{2}$ .

**Question 5** Enter the matrix  $\begin{bmatrix} x & y \\ xy & z+1 \end{bmatrix}$ 

correctMatrix = [['x','y'],['xy','z+1']]