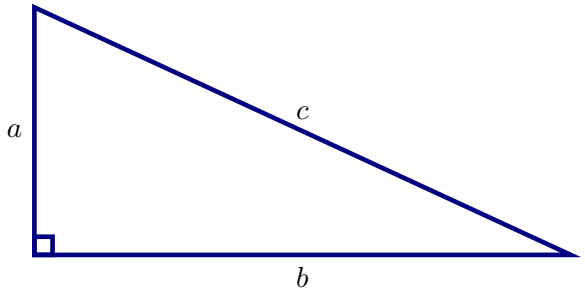
First example

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*

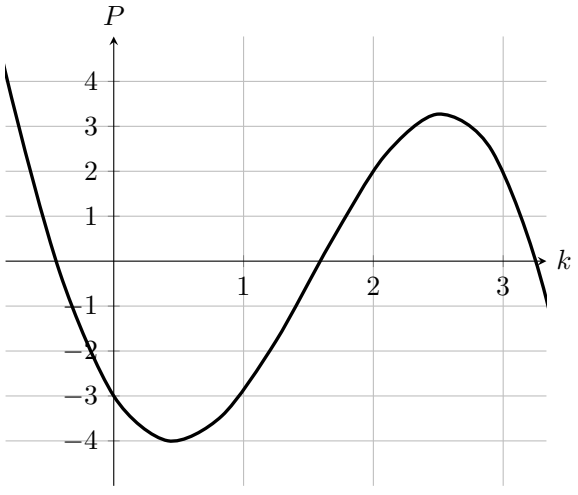
(e) *main coon*

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*?*



Multiple Choice:

(a) *Yes.* ✓

(b) *No.*

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

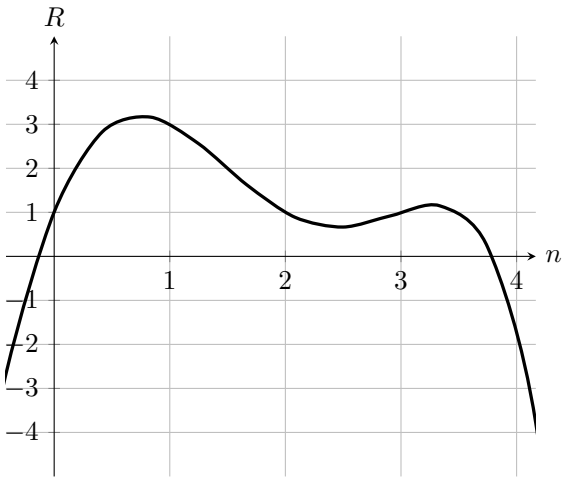
Use the plot to compute $P(2)$.

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 4.2 *In the plot below, is* R *a function of* n*?*



Multiple Choice:

(a) *Yes.* ✓

(b) *No.*

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

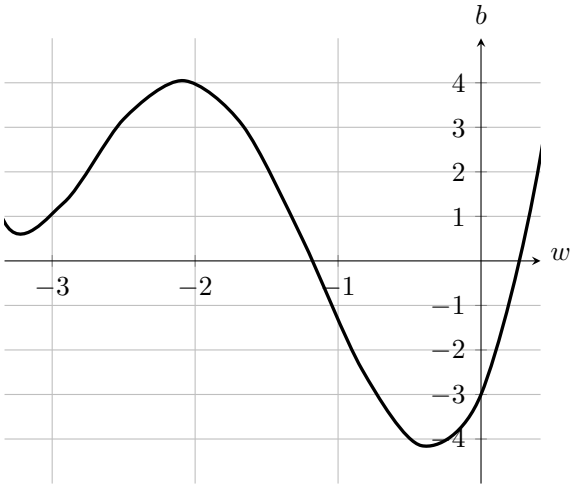
Use the plot to compute $R(3)$.

Hint: *To start, find 3 on the horizontal axis.*

Hint: *Now from this position, move up or down until you reach the curve. The value of $R(3)$ is the height of the curve at the point $n = 3$.*

The value of $R(3)$ is $\boxed{1}$.

Question 4.3 *In the plot below, is b a function of w?*



Multiple Choice:

(a) *Yes.* ✓

(b) *No.*

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

Use the plot to compute $b(-2)$.

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 $b(-2)$ is the height of the curve at the point $w = -2$.*

The value of $b(-2)$ is $\boxed{4}$.

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

Matrix Answer

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