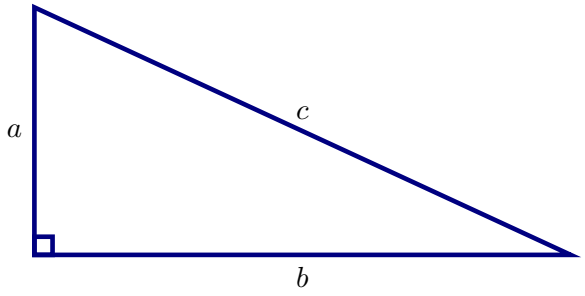
# First example

*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* $\boxed{-2.72}$.

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**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!*

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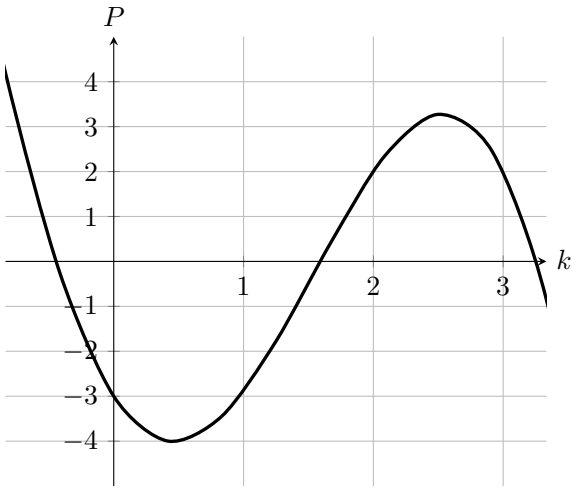
**Question 4** *In the plot below, is* $P$ *a function of* $k$*?*




***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* $\boxed{2}$.

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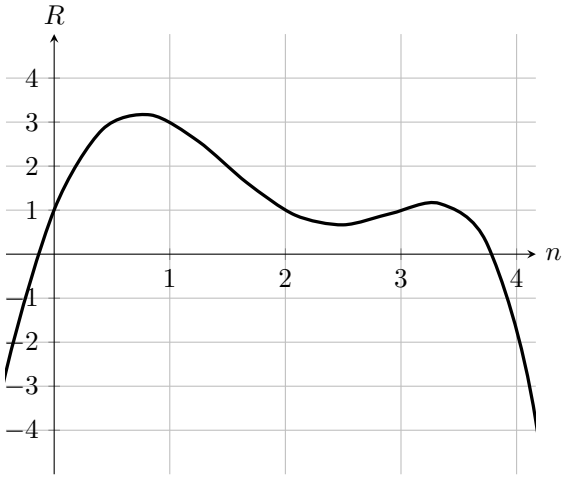
**Question 5** *In the plot below, is* $R$ *a function of* $n$*?*




***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* $\boxed{1}$.

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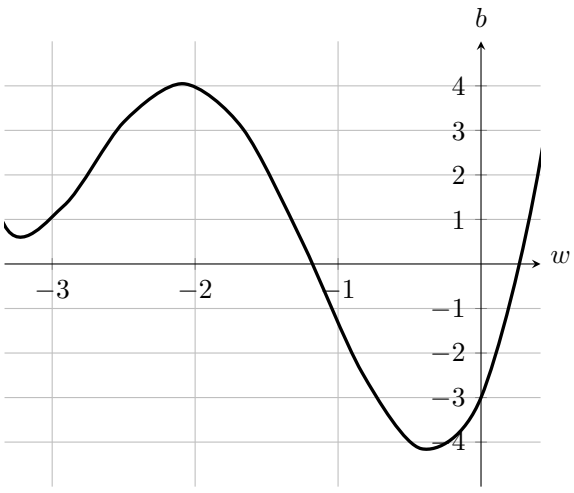
**Question 6** *In the plot below, is $b$ a function of $w$?*




***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* $\boxed{4}$.

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