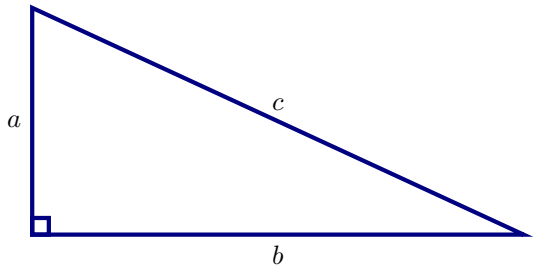
First example

In this activity we see some examples.

To start we can have theorem environments YYYZZZ:

Theorem 1 *Given a right triangle:*



We have that:

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

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

Solution

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

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

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

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

Solution

(a) tabby

(b) puppy ✓

(c) dog

(d) kitten

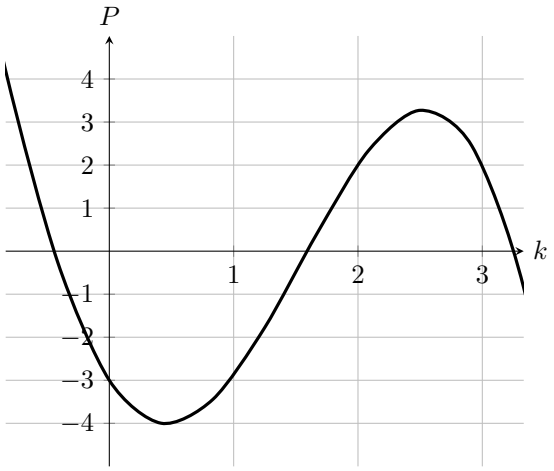
(e) main coon

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

Hint: *It is a puppy!*

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

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



Solution

(a) Yes. ✓

(b) No.

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

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

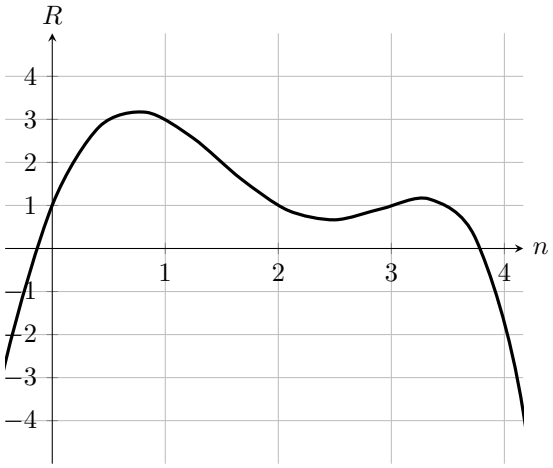
Solution

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 2.

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



Solution

(a) Yes. ✓

(b) No.

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

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

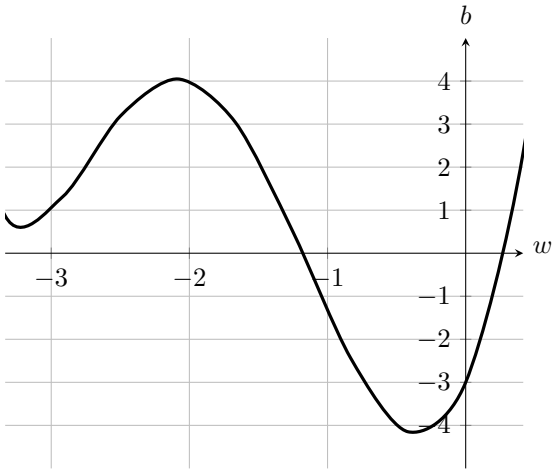
Solution

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 1.

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



Solution

(a) Yes. ✓

(b) No.

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

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

Solution

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 4.