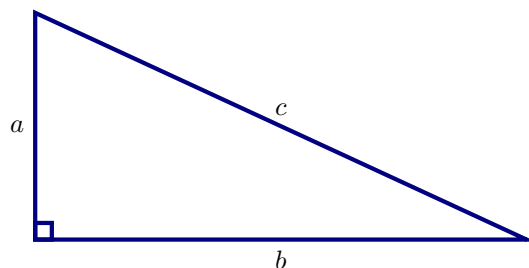


# 1 First example

*In this activity we see some examples.*

To start we can have theorem environments:

**Theorem 1** Given a right triangle:



We have that:

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

**Exercise 1** 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  $-2.72$ .

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**Question 2** What is the worst kind of cat?

**Solution**

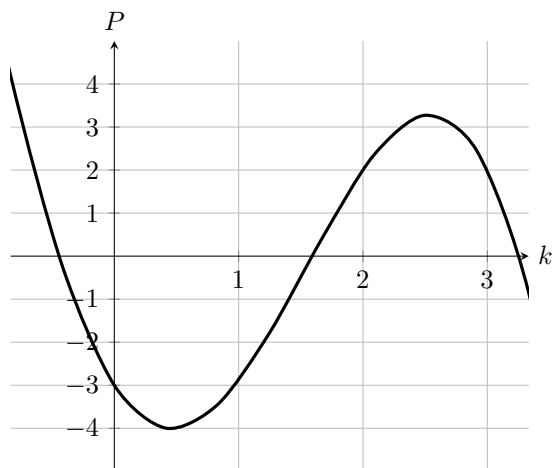
- (a) tabby
- (b) puppy ✓
- (c) dog
- (d) kitten
- (e) main coon

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

**Hint:** It is a puppy!

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**Question 3.1** 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**

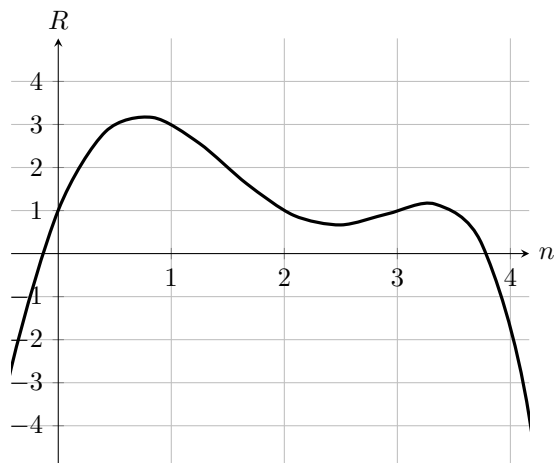
**Hint:** To start, find 2 on the horizontal axis.

**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.

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**Question 3.2** 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**

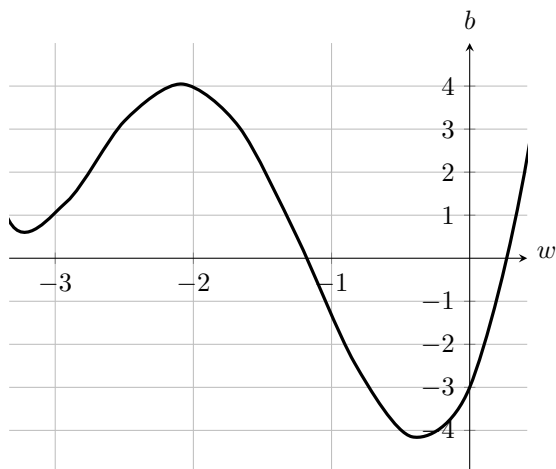
**Hint:** To start, find 3 on the horizontal axis.

**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.

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**Question 3.3** 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.

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