



Distance formula

Geom
Uni

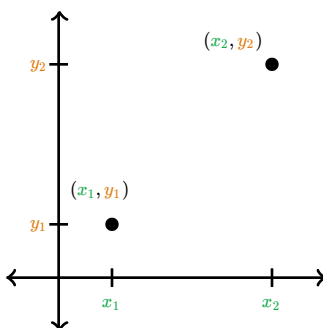
The **distance** between the points (x_1, y_1) and (x_2, y_2) is given by the following formula:

$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

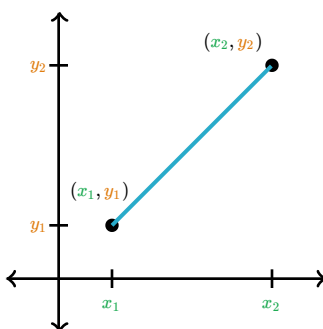
In this article, we're going to derive this formula!

Deriving the distance formula

Let's start by plotting the points (x_1, y_1) and (x_2, y_2) .



The length of the segment between the two points is the **distance** between them:



We want to find the **distance**. If we draw a right triangle, we'll be able to use the Pythagorean theorem!

Pr

Py



Qu...

5 questions



Next article



Pythagorean theorem challenge

4 questions

Practi

Py
be: X

Distance formula

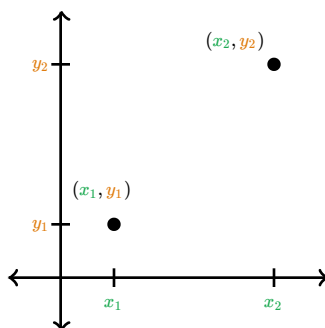
The **distance** between the points (x_1, y_1) and (x_2, y_2) is given by the following formula:

$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

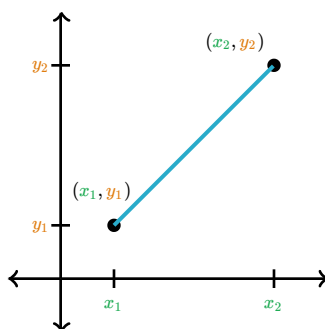
In this article, we're going to derive this formula!

Deriving the distance formula

Let's start by plotting the points (x_1, y_1) and (x_2, y_2) .



The length of the segment between the two points is the **distance** between them:



We want to find the **distance**. If we draw a right triangle, we'll be able to use the Pythagorean theorem!


[Next article](#)