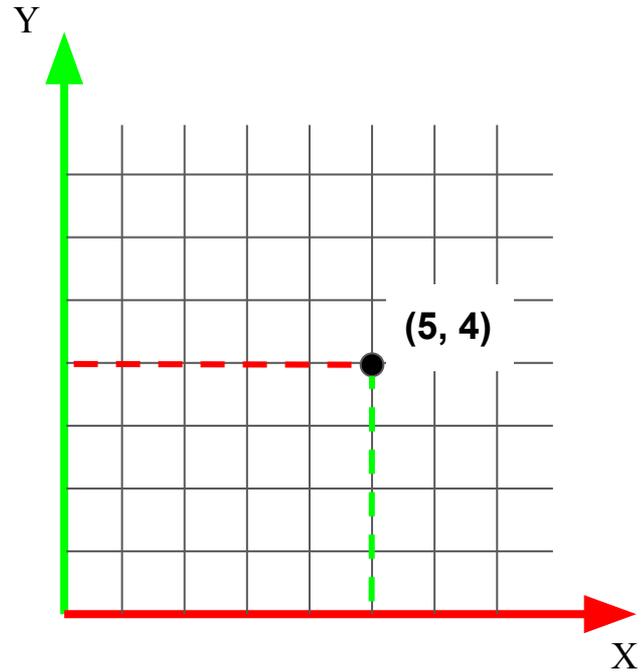




## Sistema cartesiano de coordenadas

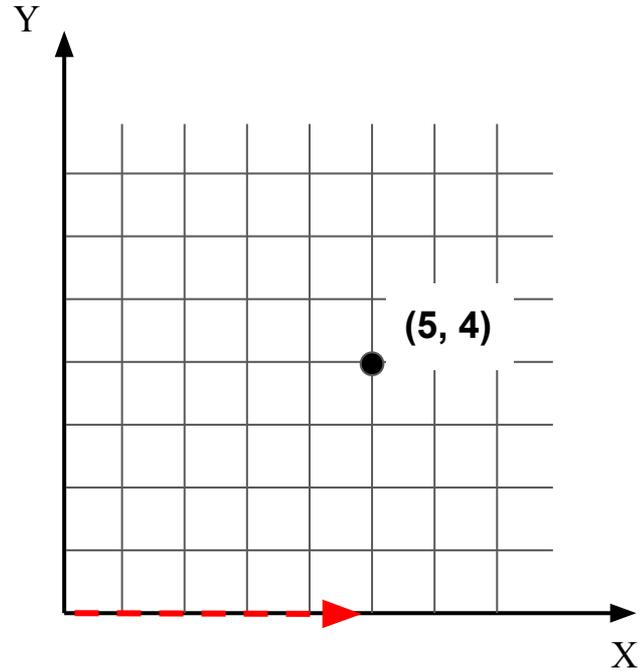
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

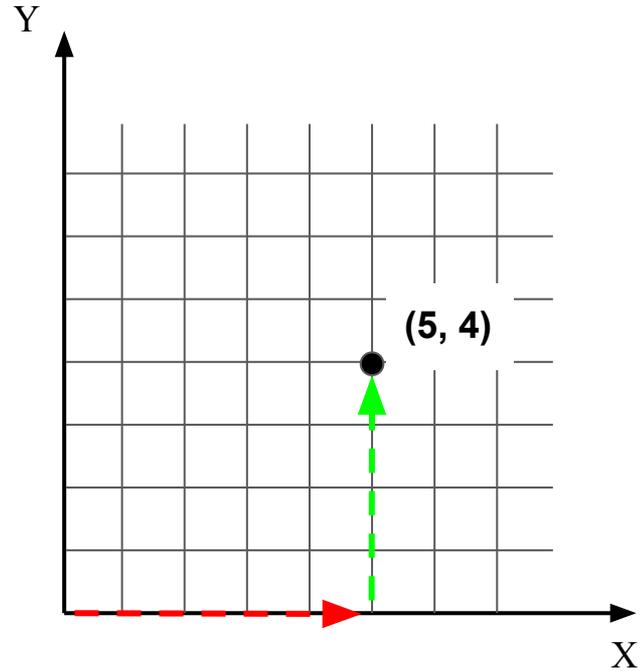
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

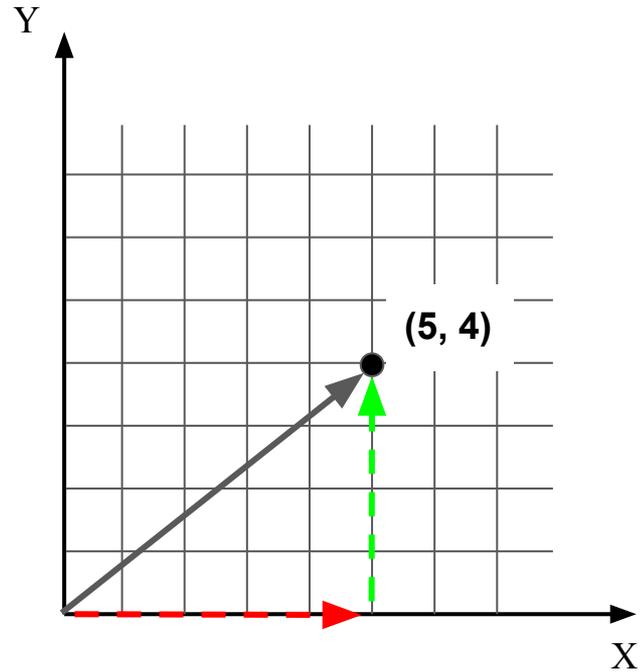
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

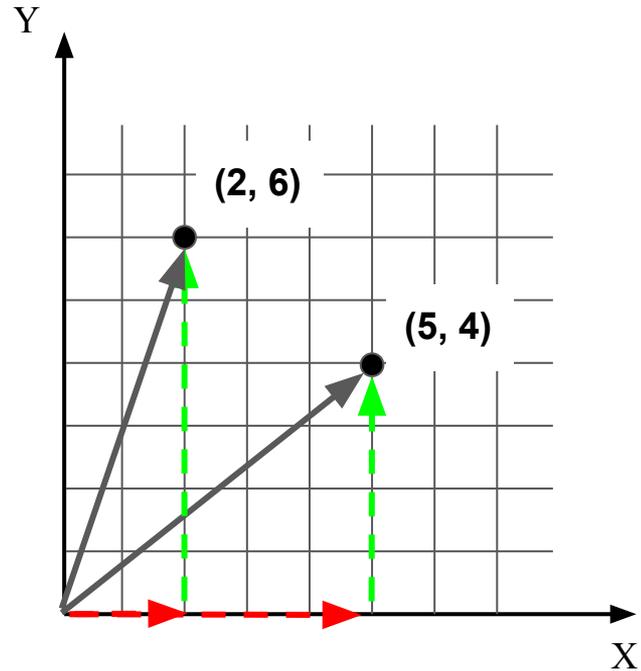
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

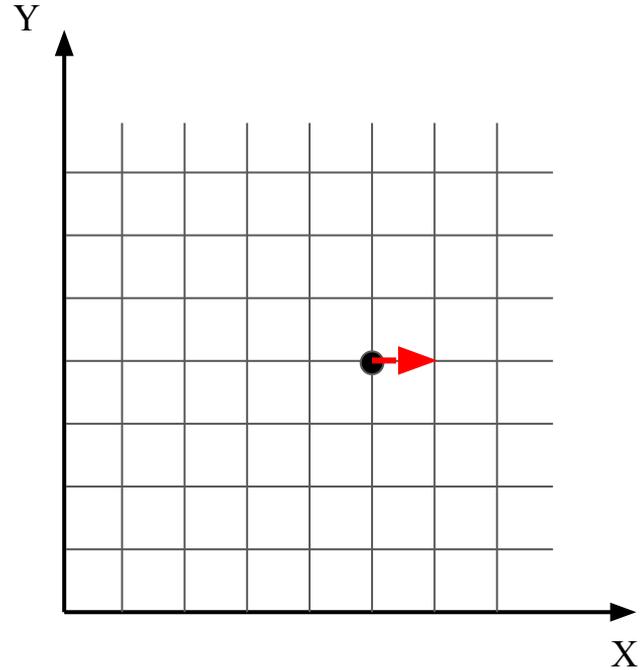
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

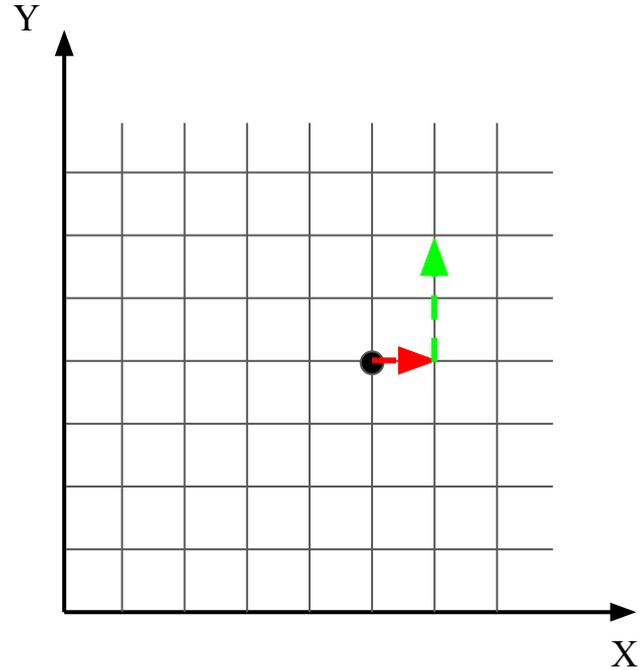
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

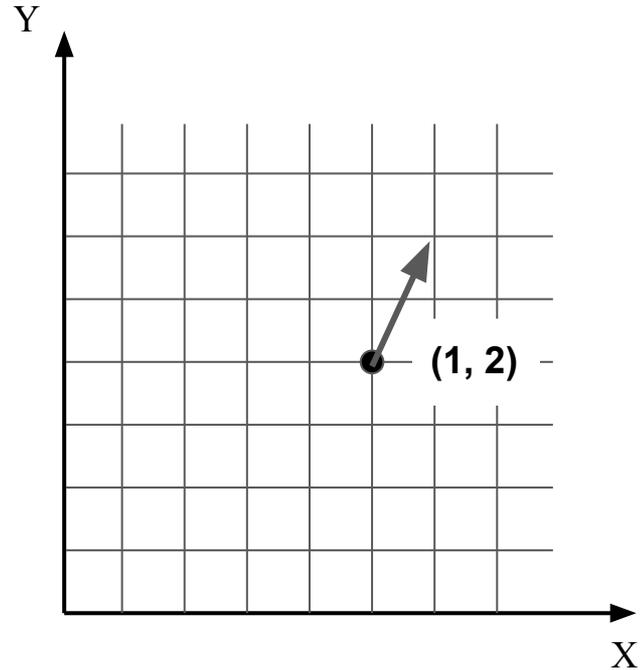
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

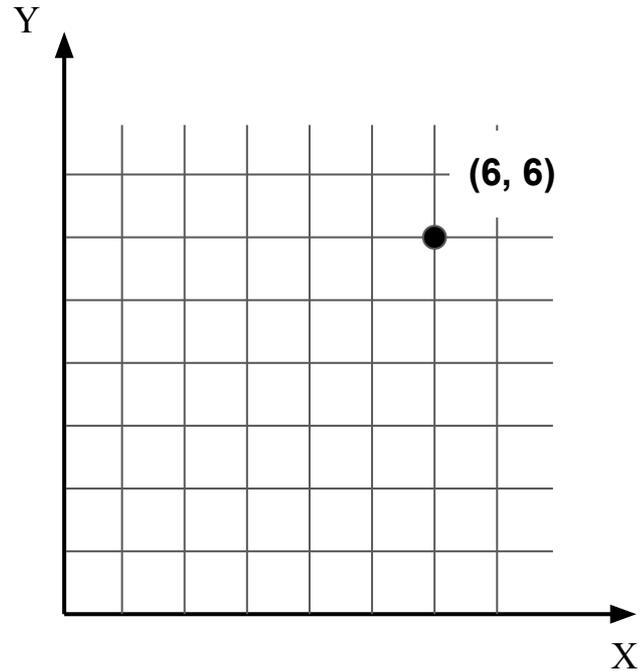
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

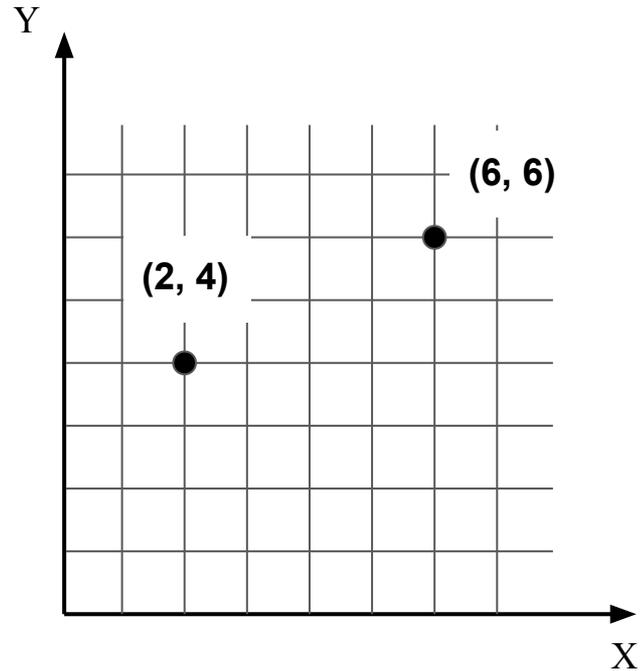
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

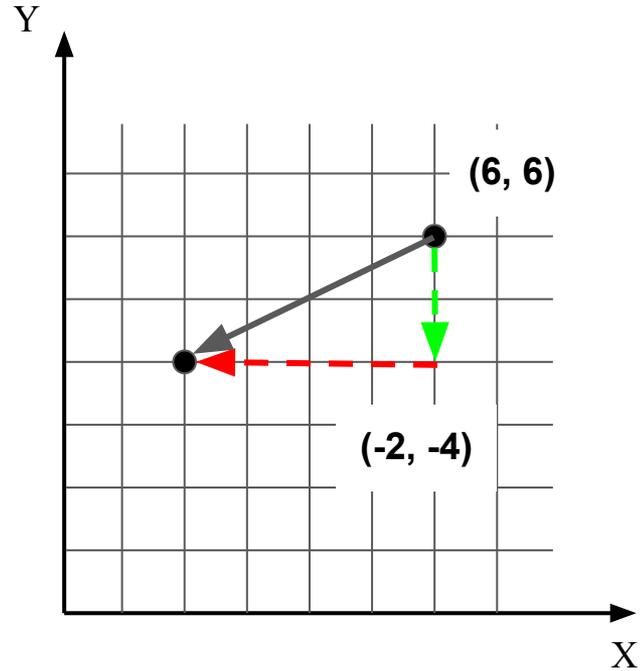
Espacio bi-dimensional





## Sistema cartesiano de coordenadas

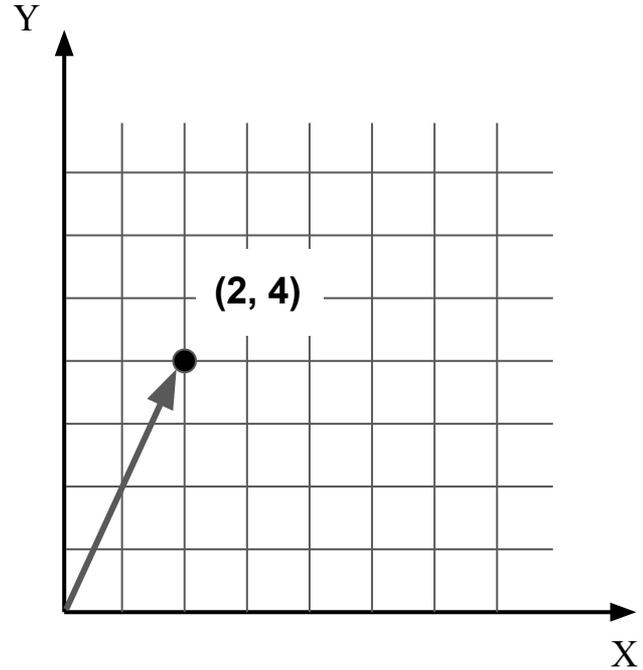
Espacio bi-dimensional

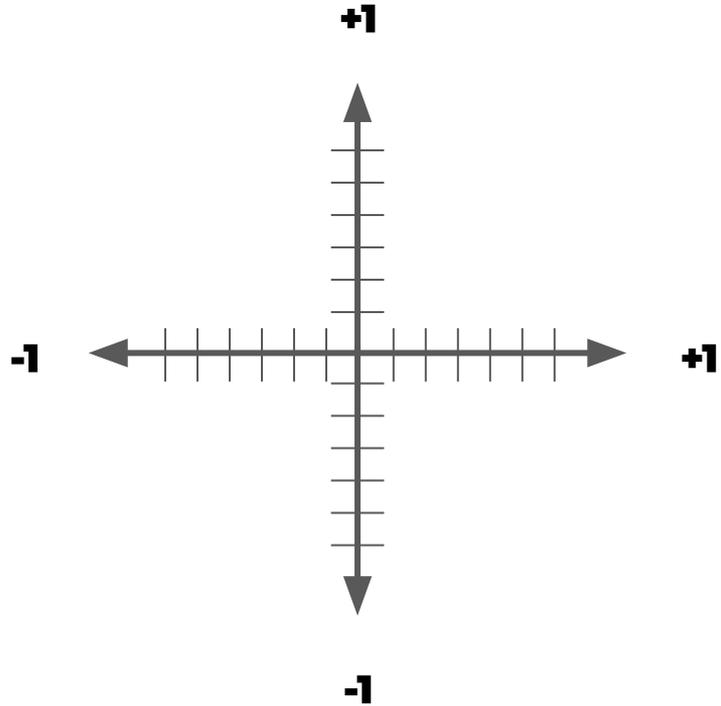


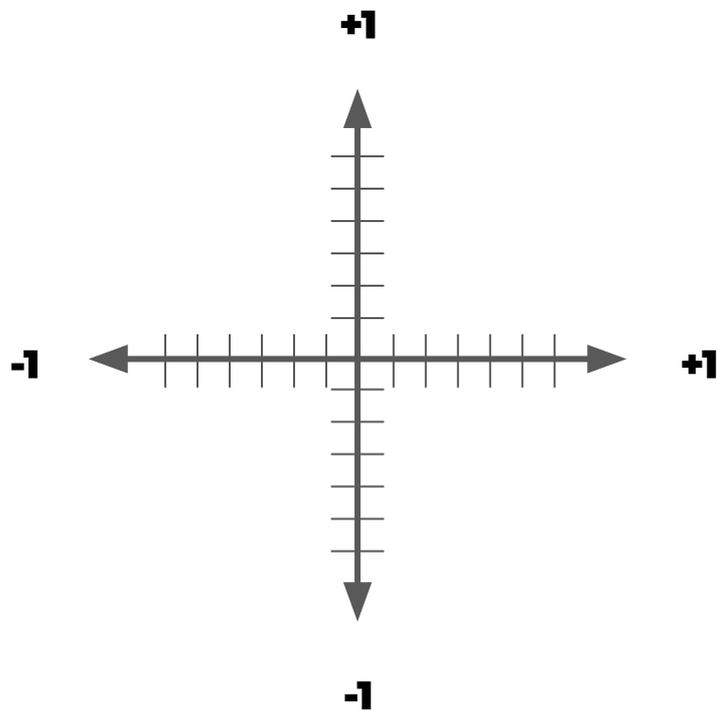


## Sistema cartesiano de coordenadas

Espacio bi-dimensional

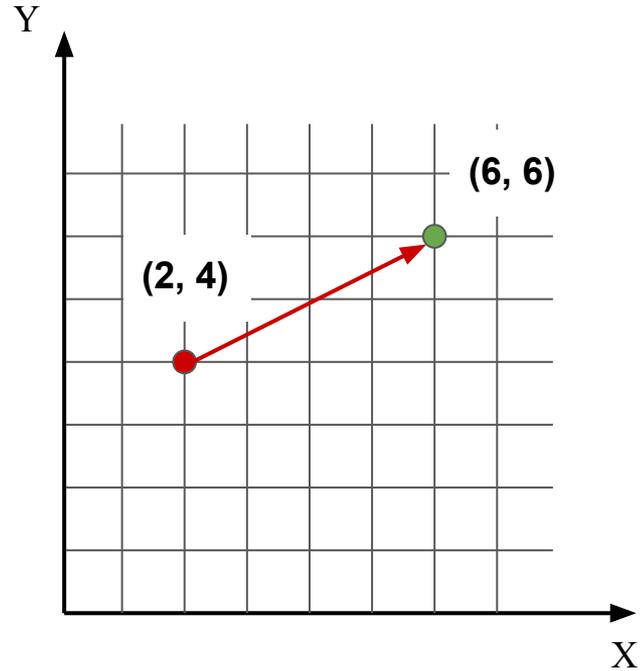








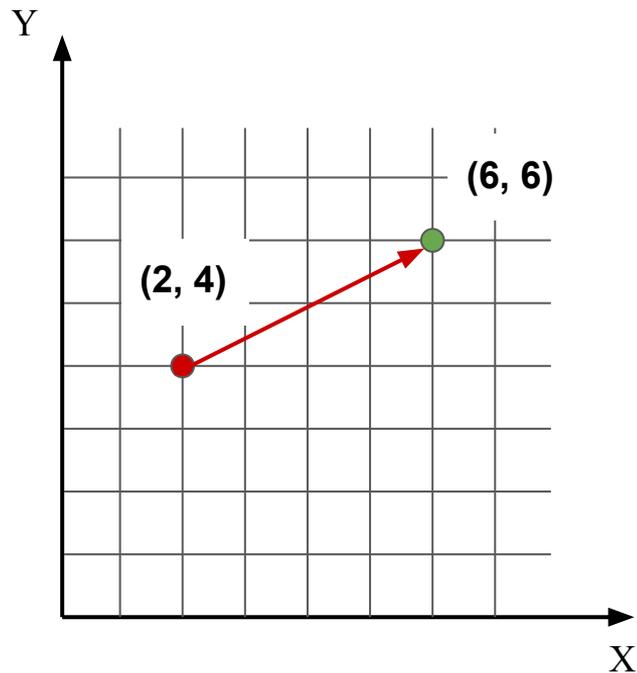
¿Cómo obtener el vector hacia el player?





¿Cómo obtener el vector hacia el player?

Destino - Origen = Vector

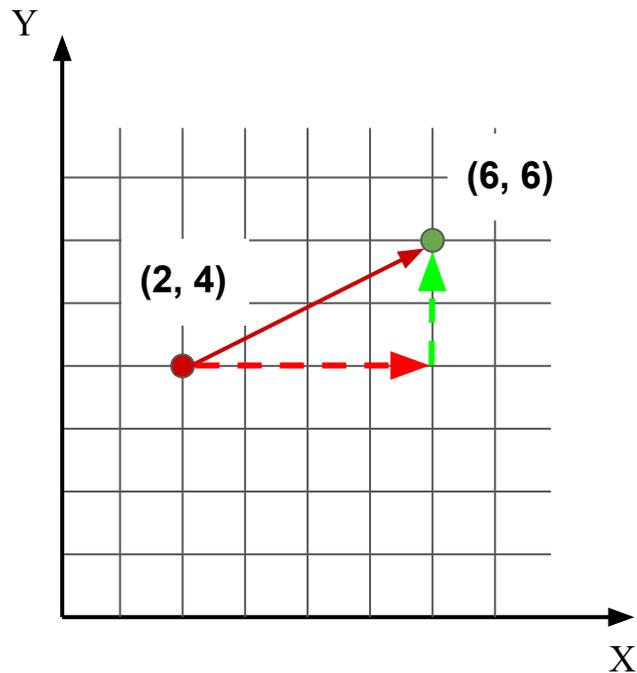




**¿Cómo obtener el vector hacia el player?**

Destino - Origen = Vector

$$(6, 6) - (2, 4) = (4, 2)$$

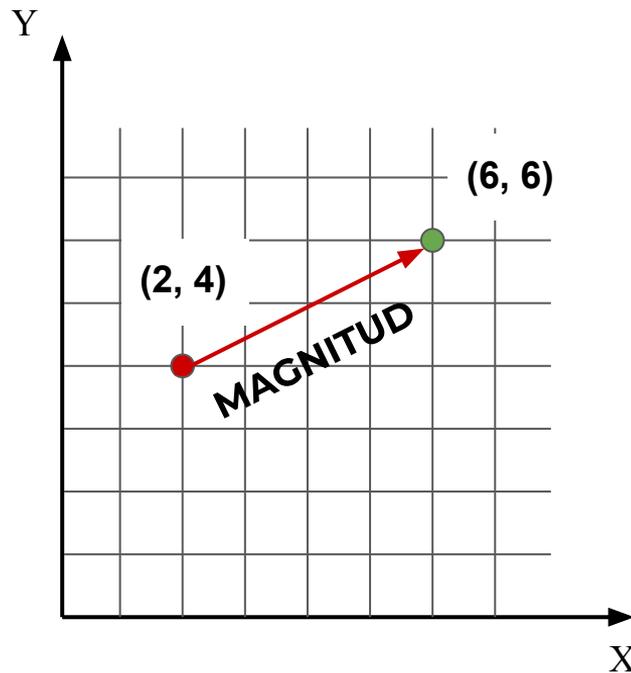




¿Cómo obtener el vector hacia el player?

Destino - Origen = Vector

$$(6, 6) - (2, 4) = (4, 2)$$



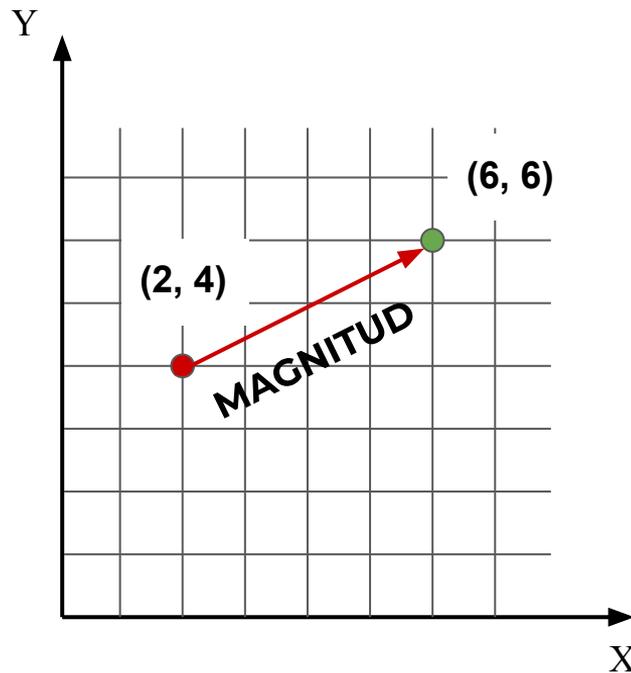


¿Cómo obtener el vector hacia el player?

Destino - Origen = Vector

$$(6, 6) - (2, 4) = (4, 2)$$

$$\text{Magnitud} = \sqrt{x^2 + y^2}$$



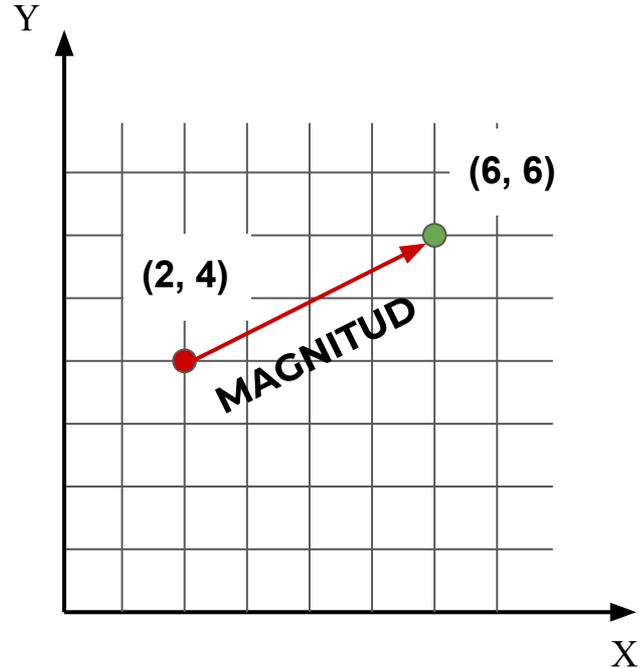


¿Cómo obtener el vector hacia el player?

Destino - Origen = Vector

$$(6, 6) - (2, 4) = (4, 2)$$

$$\text{Magnitud} = \sqrt{x^2 + y^2} = 4,47$$



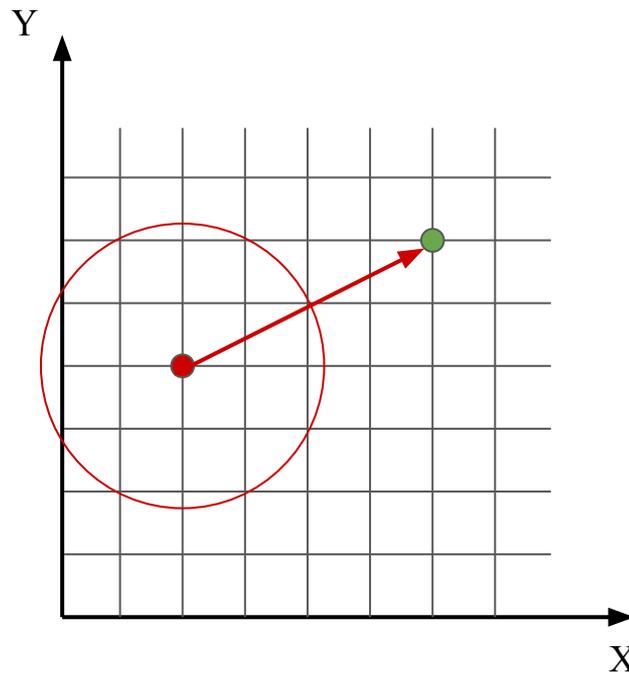


¿Cómo obtener el vector hacia el player?

Destino - Origen = Vector

$$(6, 6) - (2, 4) = (4, 2)$$

$$\text{Magnitud} = \sqrt{x^2 + y^2} = 4,47$$



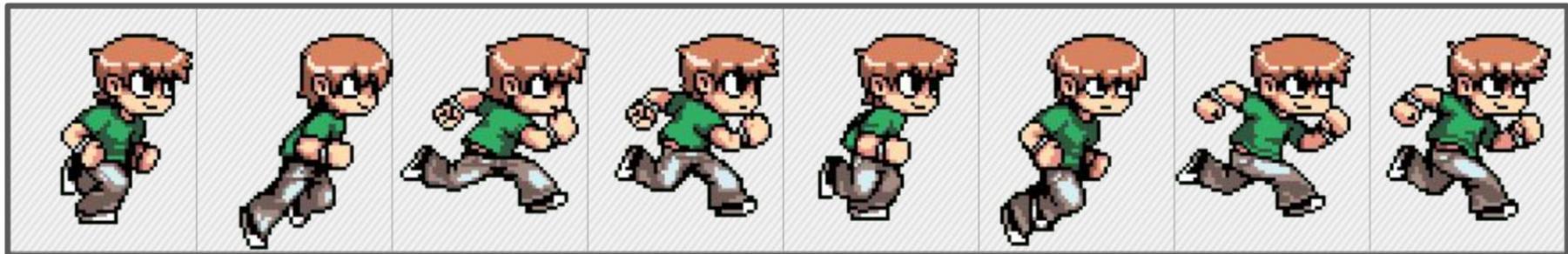


# Tiempo





**FRAMES**



**60 fps**



**60 fps**



~~60 fps~~



 = Delta Time





**Velocidad = 5**

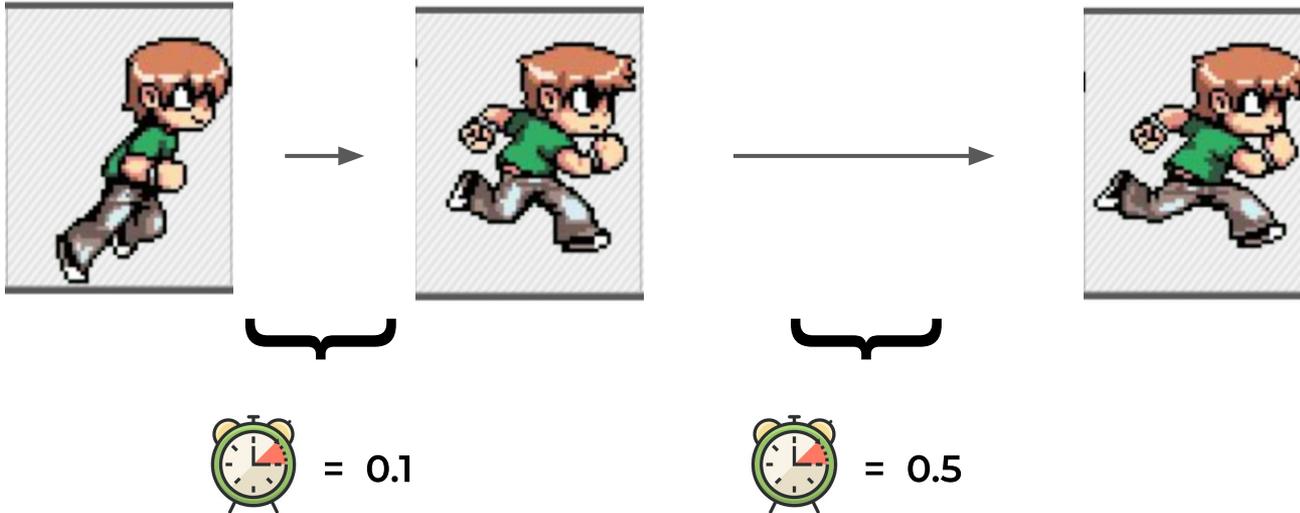
**Vector = (1, 0)**





**Velocidad = 5**

**Vector = (1, 0)**





**Velocidad = 5**

**Vector = (1, 0)**



= 0.1

$$5 * 0.1 = 0.5$$



= 0.5

$$5 * 0.5 = 2.5$$