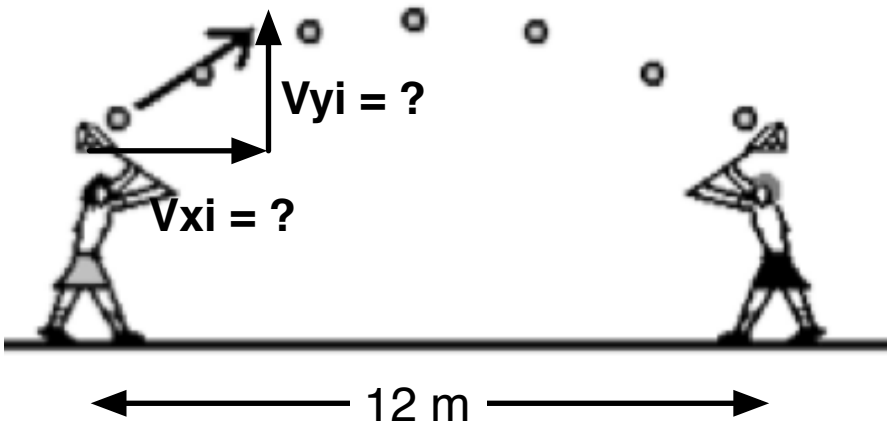
Dx = (Vxi)(t)

Vy = Vyi - 10t



The ball takes 4 seconds to get there. It travels 12 m.

a) Find the time to get to the top.

b) Find Vyi.

c) Find Vxi.

Dx = 12 m

Using the whole distance it went in the x, means using the whole time. Use t = 4 seconds

Dx =(Vxi)(t)

12 = (Vxi)(4)

3 m/s = Vxi

At the top, Vy = 0

Use half the time - that's when it would be at the top: t = 2 sec.

Vy = Vyi - 10t

0 = Vyi - (10)(2)

0 = Vyi - 20

+20 +20 *Add 20 to both sides.*

20 m/s = Vyi