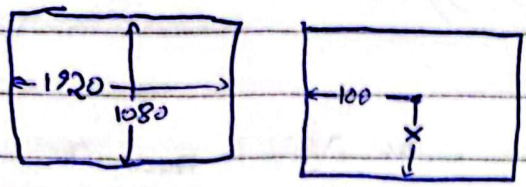
PAGE

DATE

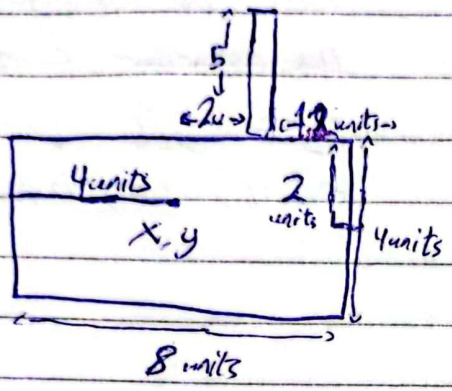


$\frac{0.5 * 1920}{0.5 * 1080} = \frac{100}{x}$ $x = 56,25$

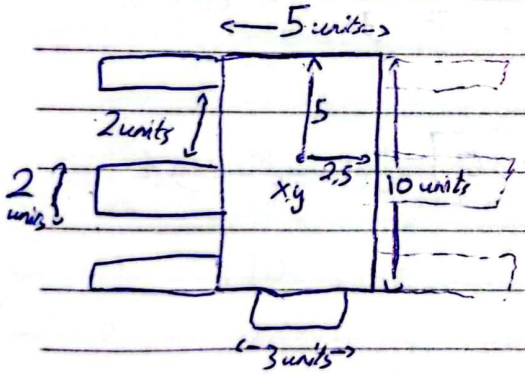
Player:  actions: ~~-move~~

-rotate

-shoot

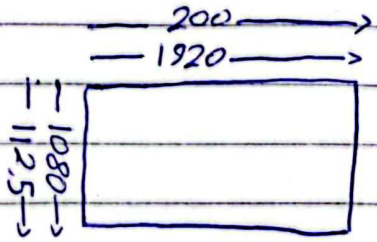


Enemy  actions: -move



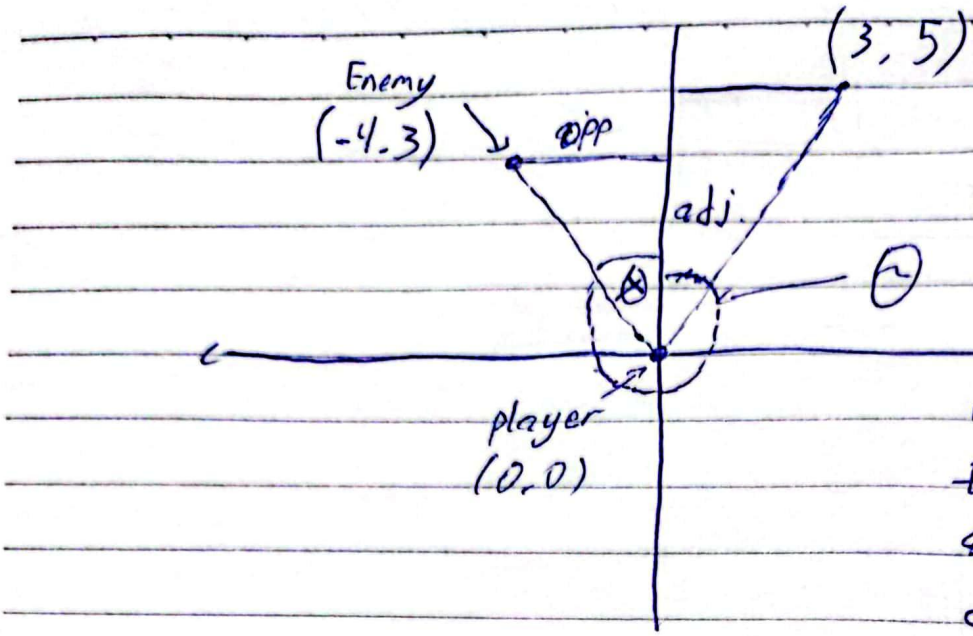
Converting from Local coordinates to world coordinates

$\therefore \frac{200}{1920} = \frac{112.5}{1080} = \frac{\text{World coordinates}}{\text{Local coordinates}}$



Word coordinates $= \frac{(200 * \text{Local coordinate})}{1920}$

"Assuming machine resolution is 1920 * 1080"



we DON'T need the angle inside the right triangle

But we NEED ~~the exterior of that angle~~ 360 − (that angle) or it's negative

$\because \tan(\otimes) = \frac{\text{opposite}}{\text{adjacent}}$ ∴

$\because$ opposite $= x_{player} - x_{enemy}$ & adjacent $= y_{enemy} - y_{player}$

$\therefore \tan(\otimes) = \frac{x_{player} - x_{enemy}}{y_{enemy} - y_{player}} = \frac{0 - -4}{3 - 0} = \frac{4}{3}$ $\therefore \otimes = 53°$

$\tan\ominus = \frac{0-3}{5-0} = \frac{-3}{5}$ $\therefore \ominus = \boxed{-30}$ desired angle