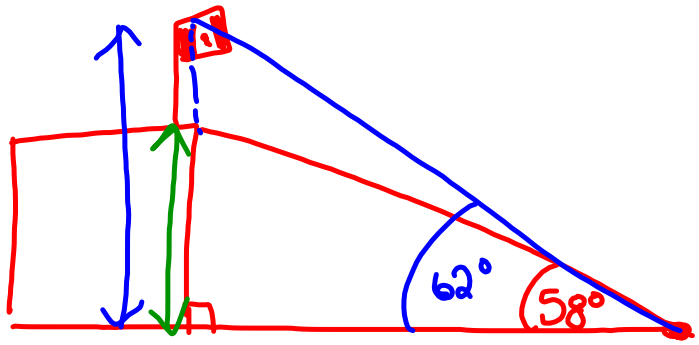
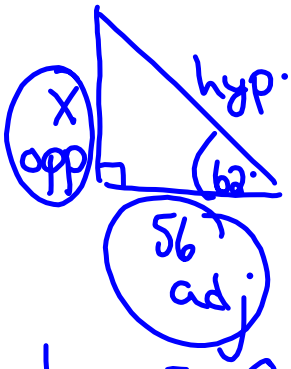


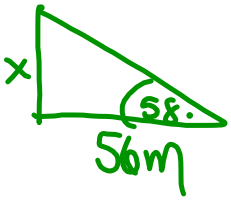


$\tan\theta = \frac{o}{a}$

$\frac{\tan 62^\circ}{1} = \frac{x}{56}$

$\frac{1.8807}{1} = \frac{x}{56}$

$x = 105.3\text{m}$



$\tan\theta = \frac{o}{a}$

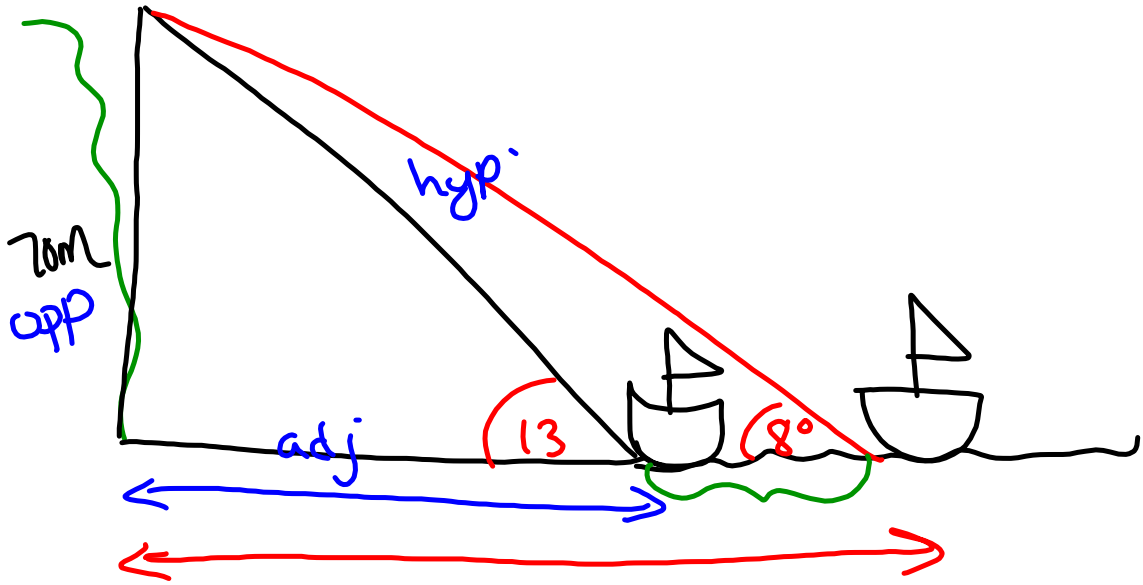
$\frac{\tan 58^\circ}{1} = \frac{x}{56}$

$\frac{1.6003}{1} = \frac{x}{56}$

$x = 89.6\text{m}$

$105.3 - 89.6$

$= 15.7\text{m}$



$\tan\theta = \frac{o}{a}$

$\tan 13° = \frac{70}{x}$

$0.2309x = 70$

$\frac{0.2309}{0.2309} \quad \frac{70}{0.2309}$

Closer → $x = 303.2m$

$\tan\theta = \frac{o}{a}$

$\tan 8° = \frac{70}{x}$

$0.1405x = 70$

$\frac{0.1405}{0.1405} \quad \frac{70}{0.1405}$

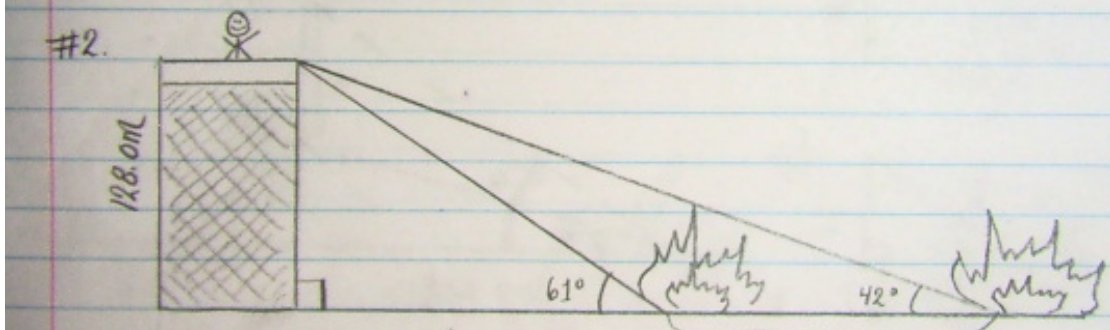
$x = 498.1$

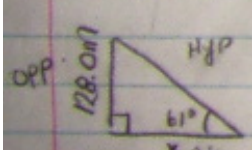
$498.1 - 303.2 = 194.9m$

Between Boats.

- The horizontal distance is 3761.5m.
- The distance btw. the plane and the tower 3933.3m.

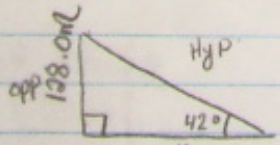
#2.





$\tan 61° = \frac{128}{x}$

$x = 70.1\,m$



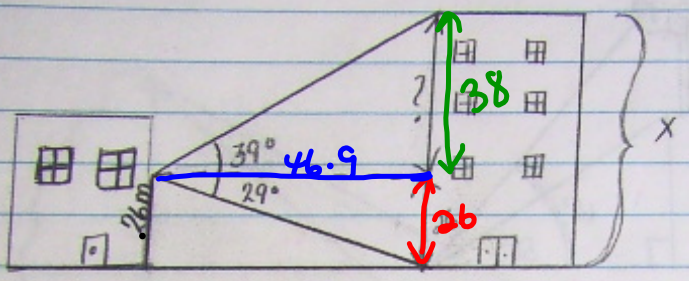
$\tan 42° = \frac{128}{x}$

$x = 142m$

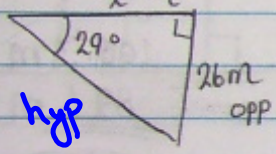
$142.2\,m - 70.1\,m = 72.1\,m$

* The distance btw. the fires is 72.1m

#3.



1st

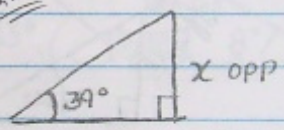


$\tan 29° = \frac{26}{x}$ $\frac{o}{a}$

$\frac{0.5543x}{0.5543} = \frac{26}{0.5543}$

$x = 46.9\text{m}$

2nd



$\tan 39° = \frac{x}{46.9}$

$\frac{0.8098}{1} = \frac{x}{46.9}$

$x = 38.0\text{m}$

3rd

$38.0\text{m} + 26\text{m} = 64\text{m}$