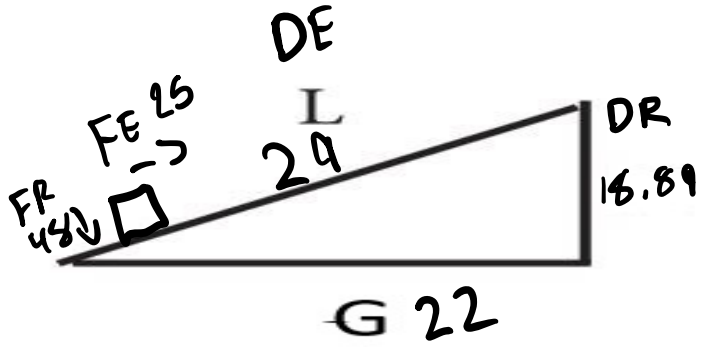
Name: Finn Murray

Given the inclined plane pictured below, when L (slope length) = 29 feet, G (Ground length of slope) = 22 feet, Fe = 25, Fr = 48 what is the a: IMA b: AMA c: Efficiency (precision of 0.01)?



$a^2 + 22^2 = 29^2$

$a^2 + 484 = 841$

-484

$a^2 = 357$

$a = \sqrt{357}$

$a = 18.89$

a. $IMA = \frac{DE}{DR}$ $\frac{29}{18.89} = 1.54$

b. $AMA = \frac{FR}{FE}$ $\frac{48}{25} = 1.92$

c. $EFF = \left(\frac{AMA}{IMA}\right) \cdot 100$ $\left(\frac{1.92}{1.54}\right) \cdot 100 = 124.68\%$

Can't have efficency over 100%

b. $AMA = \frac{FR}{FE}$ $\frac{25}{48} = 0.52$

Fe and FR might be swapped on accident?

c. $\left(\frac{0.52}{1.54}\right) \cdot 100 = 33.77\%$

Write ONLY answers below this line _____

Set58

a: 1.54

b: 1.92

c: 124.68