Good morning: attach half sheet to notes, then answer #1-8

Honors Geometry

Similar Triangle Criteria

Are the triangles in each pair are similar? If so, state how you know they are similar (SSS~, SAS~, or AA~) and complete the similarity statement.

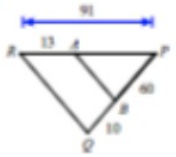
1)

$\Delta RST \sim$ _____

2)

$\Delta VUT \sim$ _____

3)

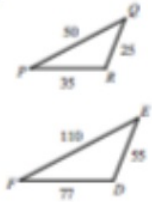


$\Delta PQR \sim$ _____

4)

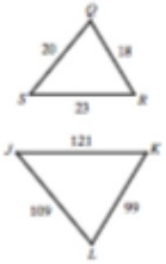
$\Delta DCB \sim$ _____

5)



$\Delta FED \sim$ _____

6)

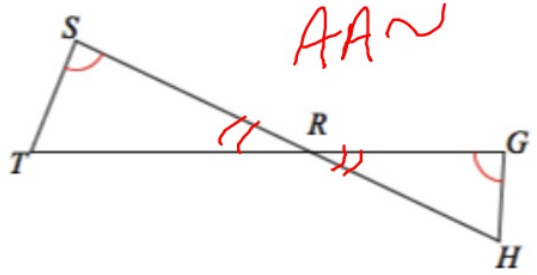


$\Delta LKJ \sim$

**You will need your textbook today
go get it NOW
don't wait til later

Reminders:
assessment
delayed to Wed.

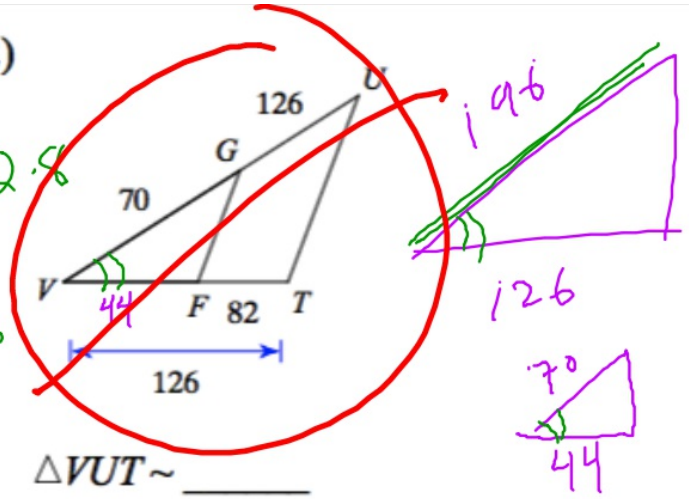
1)



AA~

$\triangle RST \sim$ $\triangle RGH$

2)

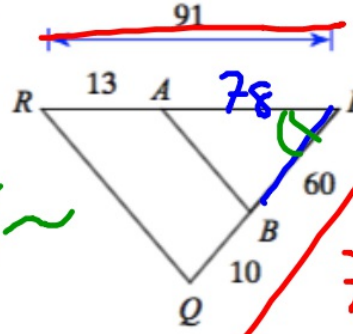


$\frac{196}{70} = 2.8$

$\frac{126}{44} = 2.86$

$\triangle VUT \sim$ _____

3)



$\frac{91}{78} = 1.16$

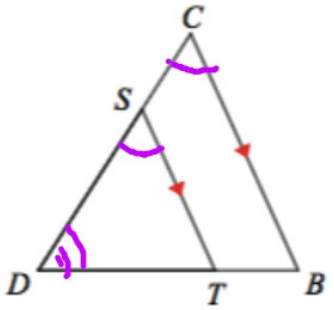
$\frac{70}{60} = 1.16$

SAS~

70

$\triangle PQR \sim$ $\triangle PBA$

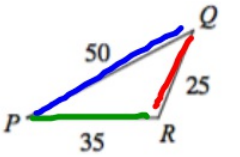
4)



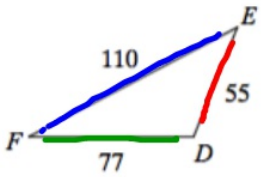
AA~

$\triangle DCB \sim$ $\triangle DST$

5)



$\frac{55}{25} = 2.2$



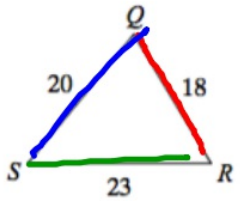
$\frac{110}{50} = 2.2$

$\frac{77}{35} = 2.2$

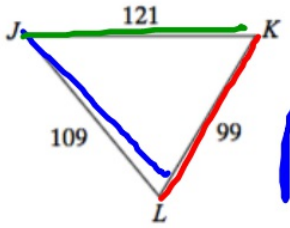
SSS~

$\triangle FED \sim \triangle PQR$

6)



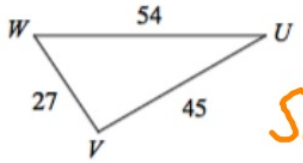
$\frac{99}{18} \neq \frac{109}{20}$



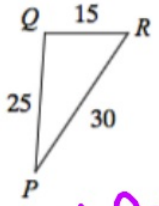
Not ~

$\triangle LKJ \sim$ _____

7)



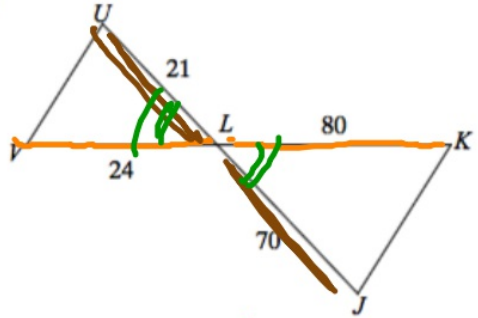
Scale factor: 1.8



SSS~

$\triangle UVW \sim \triangle PQR$

8)



$\frac{70}{21} = \frac{80}{24} = 3.\overline{3}$

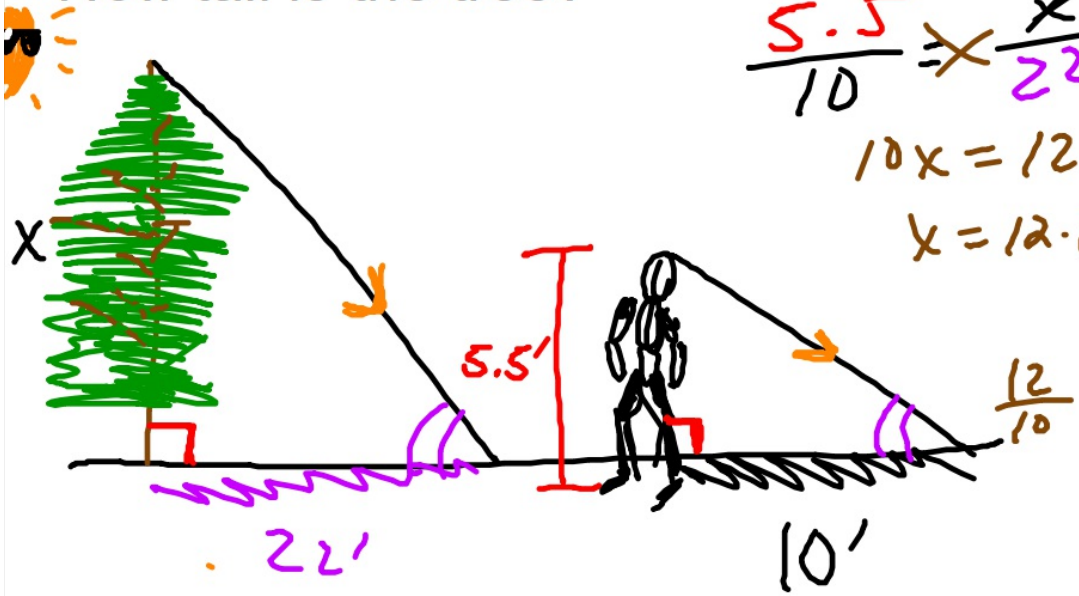
SAS~

$\triangle LKJ \sim \triangle LVU$

Indirect Measurement

NOTES

At sunset, a tall tree casts a shadow that measures 22 feet long.
At the same time, a 5'6" person casts a 10 foot shadow.
How tall is the tree?



$\frac{5.5}{10} = \frac{x}{22}$

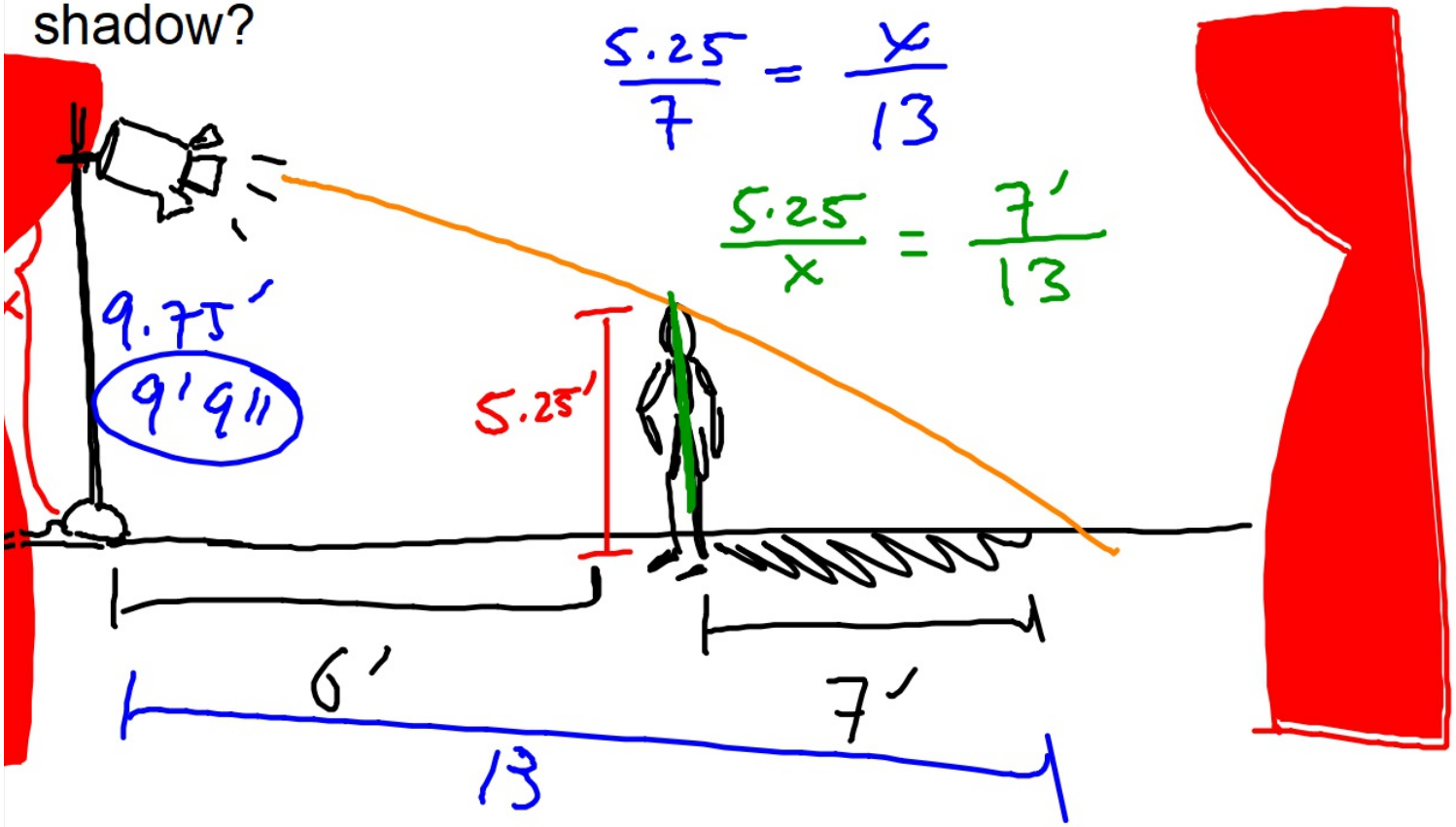
$10x = 121$

$x = 12.1$

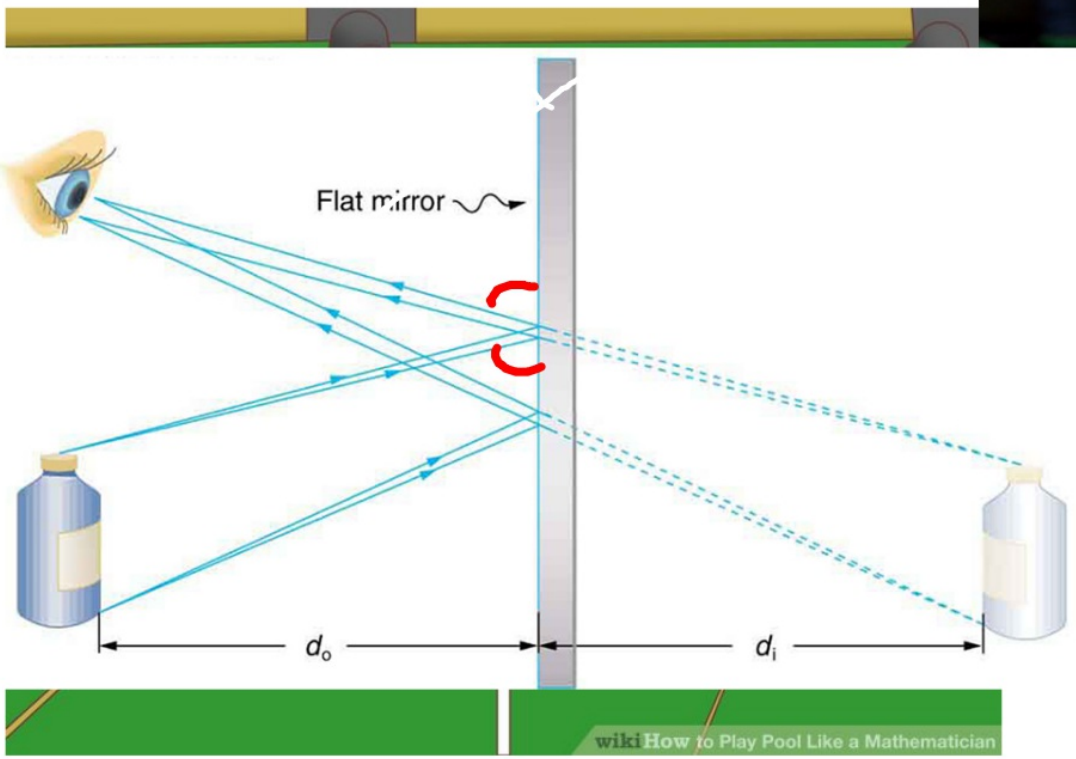
$\frac{12}{10}$ = 12"

- 12' 1"
- 12' 9"
- 12' 12"
- 12.1'

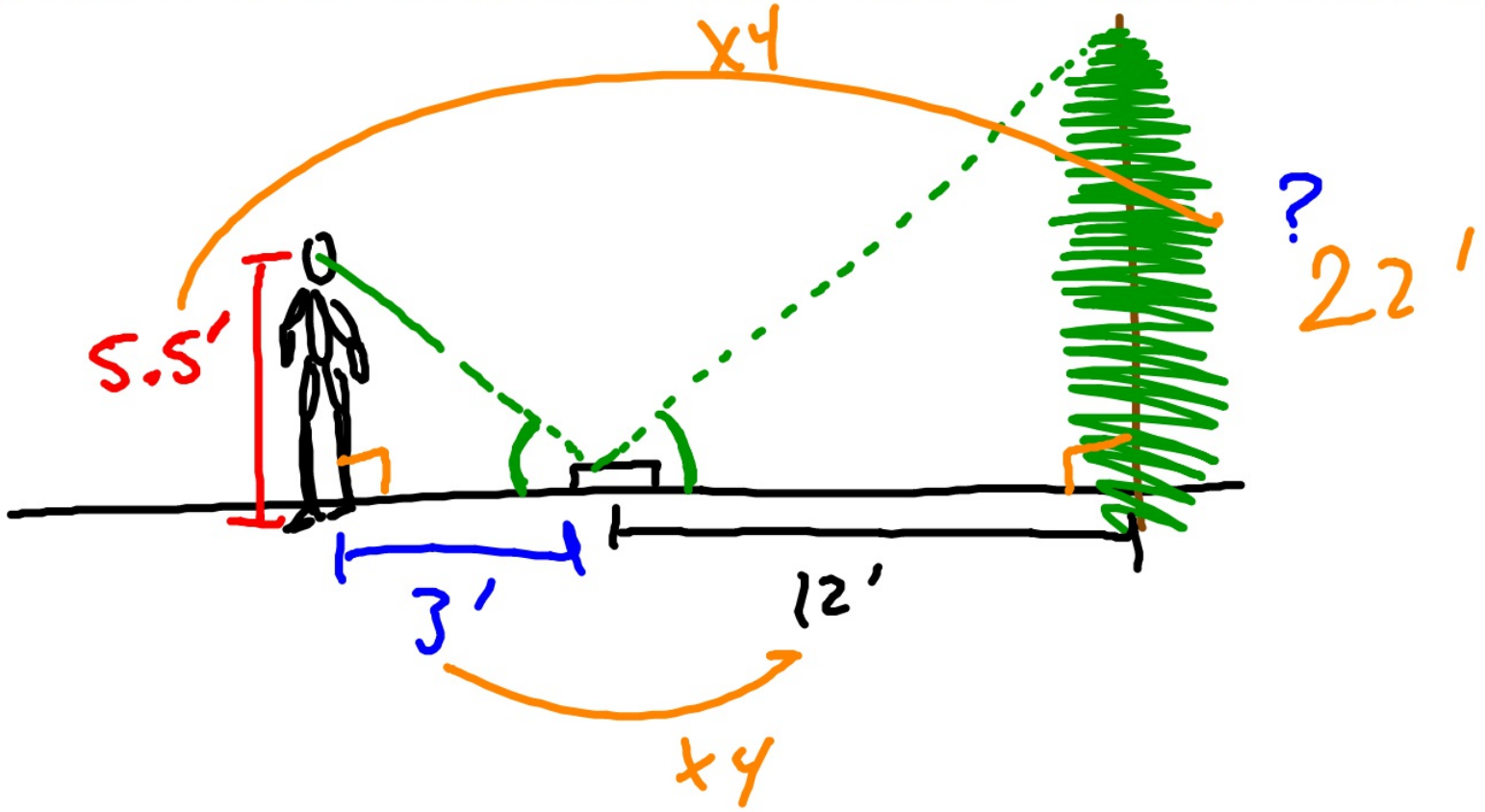
A stage lamp hangs above a stage. A 5'3" actor stands 6 feet from the spot on the floor directly below the lamp. How high above the stage floor should the lamp be in order for the actor to cast a 7' shadow?



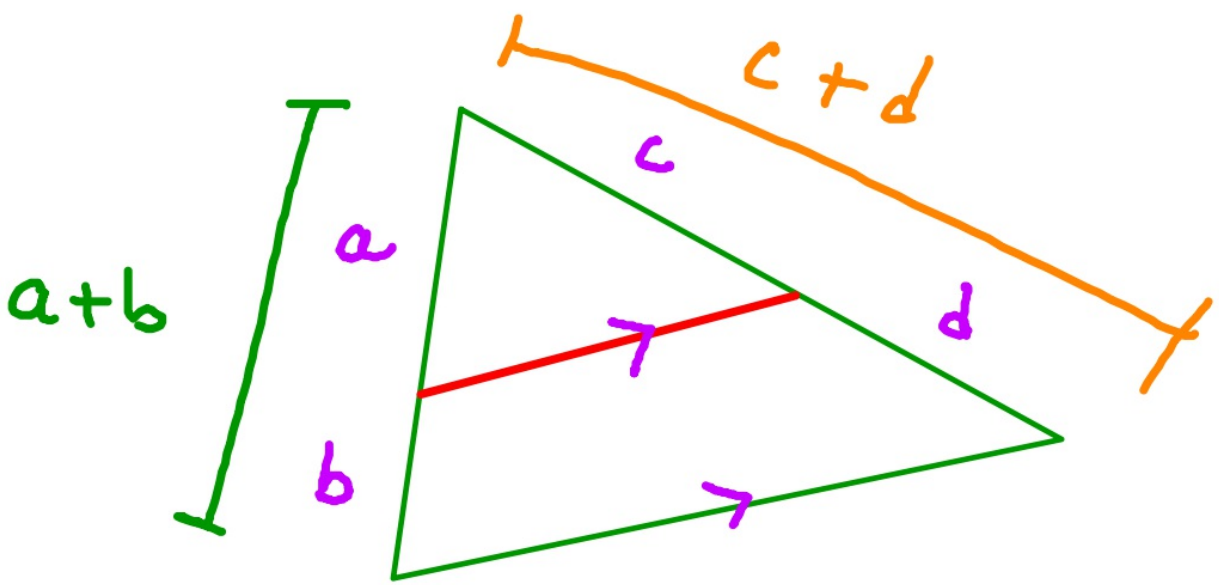
Angle of Incidence/Angle of Reflection



A mirror is placed 12 feet from the base of a Douglas Fir. A student whose eye is 5'6" above the ground walks back from the mirror until she sees the top of the tree in the mirror. She is 3 feet from the mirror when she stops. How tall is the fir?



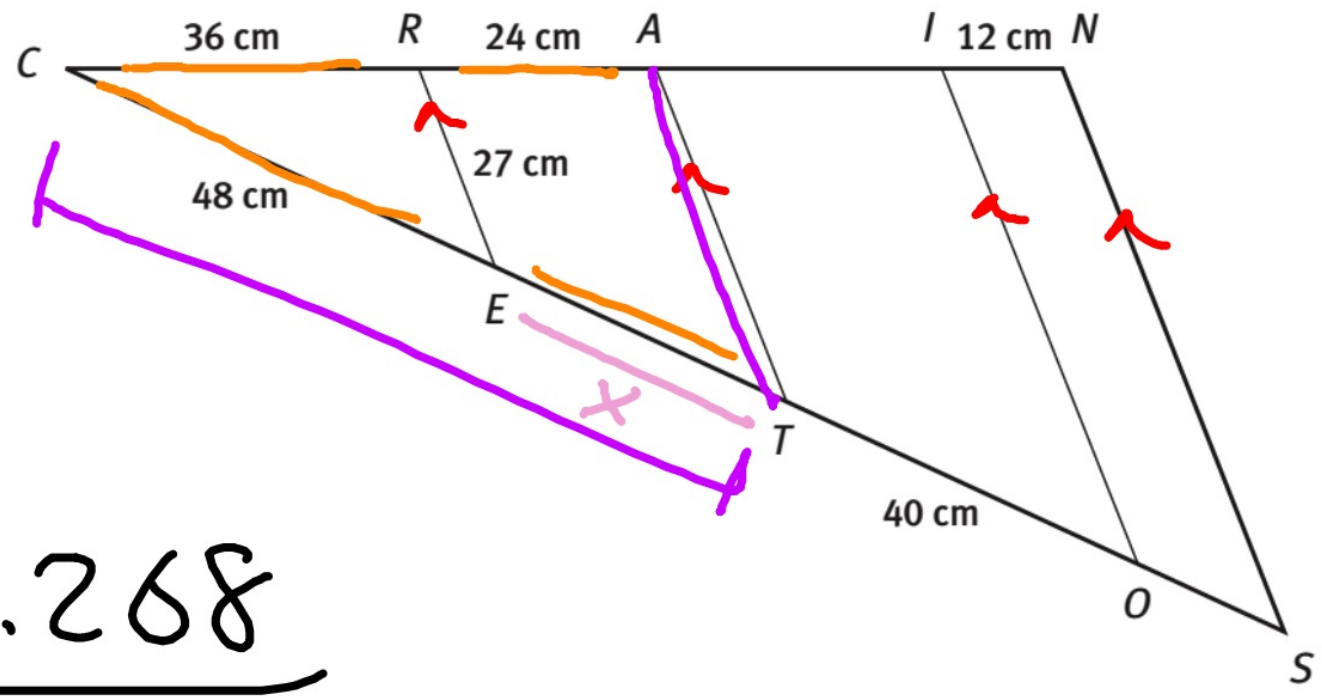
The Triangle Proportionality Theorem



If parallel,

$$\frac{a}{b} = \frac{c}{d}$$

11. Given: $\overline{RE} \parallel \overline{AT} \parallel \overline{IO} \parallel \overline{NS}$. Determine each length. Show your work.



p. 268

p. 259??

ET

$\frac{36}{24} = \frac{48}{x}$

$x = 32$.

AI

30

AT

45

OS

16

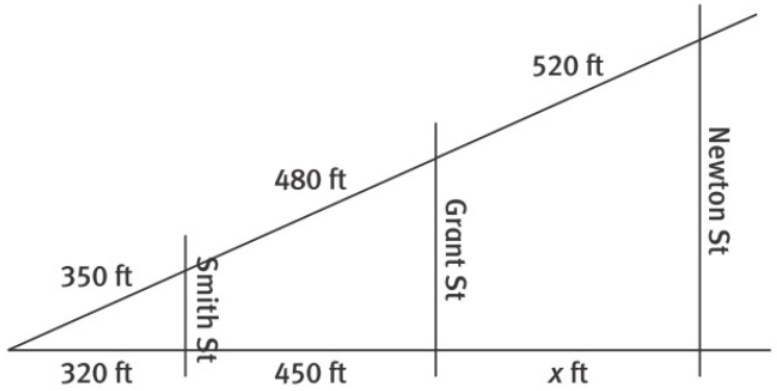
IO

67.5

NS

76.5

12. Attend to precision. A land developer is using a surveyor to measure distances to ensure that the streets in the new community are parallel.



a. If Grant Street and Newton Street are parallel, what is the value of x? Support your answer.

b. Are Smith Street and Grant Street parallel? Support your answer.

HW
p. 264 #2-5
p. 270 #16

Assessment: Wednesday 1/24