Good afternoon: warm up in notebooks

Write the equation of the line through (-3,2) perpendicular to $4x - 3y = 9$.

$\frac{a}{b} \perp -\frac{b}{a}$

$\frac{4}{3} \perp -\frac{3}{4}$

$+3y \quad +3y$

$4x = 3y + 9$

$-9 \qquad -9$

$\frac{4}{3}x - 3 = y \Leftarrow \frac{4x}{3} - \frac{9}{3} = \frac{3y}{3}$

Hint:

$y - y_1 = m(x - x_1)$

$y - 2 = -\frac{3}{4}(x + 3)$

$y = -\frac{3}{4}x - \frac{1}{4}$

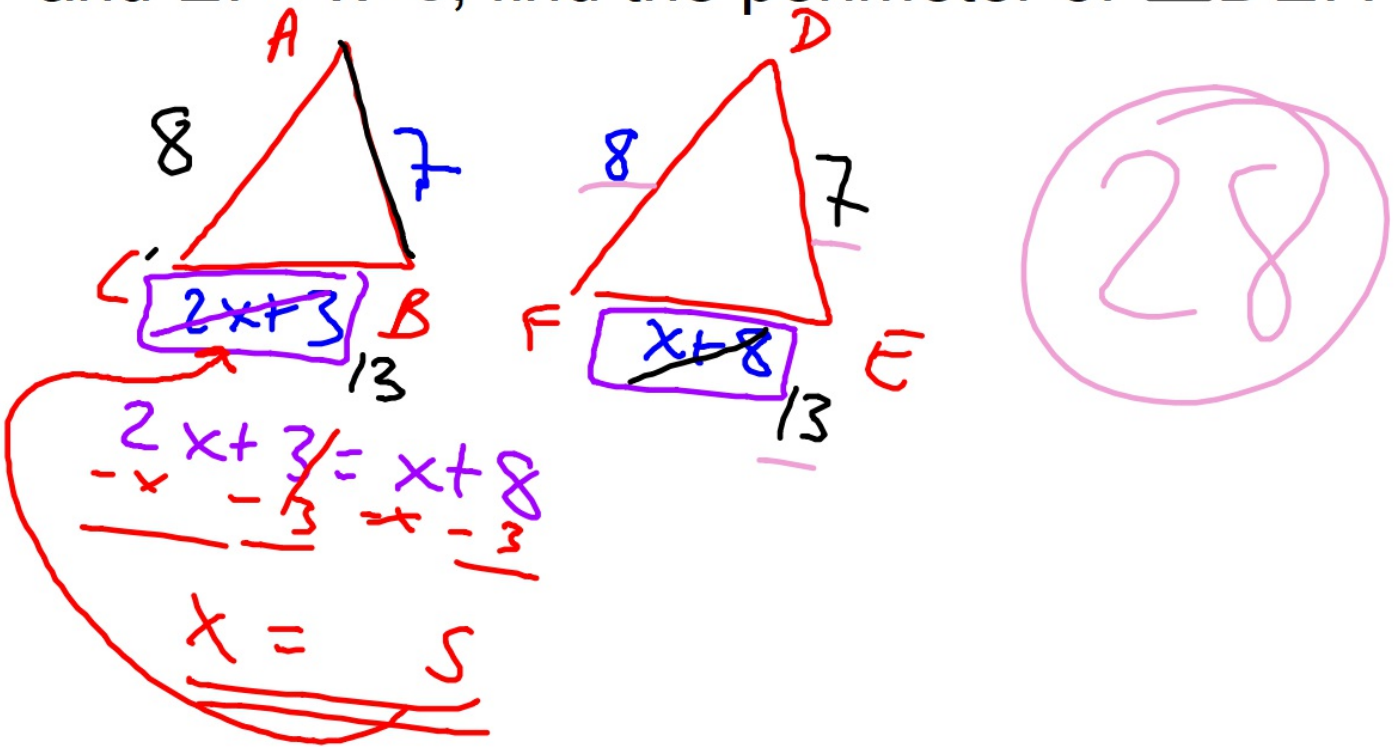
Reminders:

tutoring today 4-5p

assessment: Monday

retakes in DS Friday

Given $\triangle ABC \cong \triangle DEF$ and BC=2x+3, AB=7, FD=8, and EF= x+8, find the perimeter of $\triangle DEF$.



$2x+3 = x+8$

$-x \quad -3 \quad -x \quad -3$

$x = 5$

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Basic triangle terminology

Acute Triangle

largest angle $< 90°$

Obtuse Triangle

largest angle $> 90°$

Right Triangle

largest angle $= 90°$

Scalene Triangle

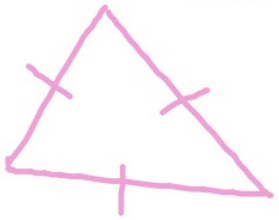
all 3 sides diff.

Isosceles Triangle

exactly 2 sides $\cong$

Equilateral Triangle

all 3 sides $\cong$



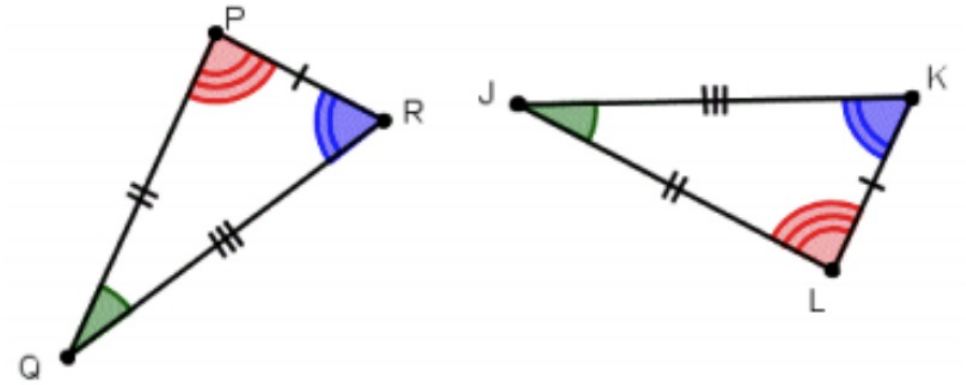
Triangle Rigidity

Triangle Inequality Theorem

The 2 shorter sides of a △ must add to make a sum larger than the third.

$a + b > c$

Congruent triangles have a lot of matching pairs
We do not need all 6 pairs to prove them congruent
We can get by with limited information



In the computer lab:

- go to mgeo.weebly.com/lab
- do the tasks there (take notes)