Warmup 3/(# of days so far in 2020) – 60

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Make sure you have a calculator

For each system, explain what your FIRST STEP would be to solve it. You do not have to actually solve any of the systems.

1) $\begin{cases} 4x - 3y = 15 \\ 7x + 6y = -4 \end{cases}$ 2) $\begin{cases} y = 5x + 1 \\ 3x + 2y = 28 \end{cases}$ 3) $\begin{cases} 2x + 4y = 18 \\ 5x - 3y = 11 \end{cases}$

4)
$$\begin{cases} y = 4x + 6 \\ y = -3x + 27 \end{cases}$$
 5) $\begin{cases} y = \frac{4}{3}x - 2 \\ y = -\frac{1}{4}x + 5 \end{cases}$ 6) (challenge) $\begin{cases} x + y = 10 \\ 3x = 9y + 12 \end{cases}$

One more (don't need to write)

Which of these is a reasonable estimate for the third side?



A. 19

B. 30

C. 49

D. 62

Hats & Hoods...

No more warnings

Going over the quiz

Retake deadline: End of 9 weeks

Going over the HW

Let's look at...

 Some real world situations that use the Pythagorean Theorem (there are several!)

Application: TV's

• Carly bought a 32 inch TV.



- However, when she measured the length, she found that it was only 28 inches.
- What's the deal???

Application: TV's

- TV's are actually measured by the length of their diagonal.
- If Carly's 32-inch TV was only 28 inches long, how tall was it?
 ≈15.5 in
- Steven also bought a 32-inch TV, but his was only 25.6 inches long. How tall was his?
 - 19.2 in
- Whose TV has a greater AREA?
- Carly: \approx 433.8 in² Steven: = 491.52 in²



TOTAL AREA 25.6 x 19.2 = 491.52 square inches

TOTAL AREA 28 x 15.7 = 439.6 square inches

CHALLENGE: Pythagorean Triples

- There are some well-known sets of three whole numbers that can form the sides of a right triangle.
- First person/pair to figure them all out will win!

Homework:

"Measuring Your TV" Sheet

- Go home and find out what size TV you have. Hopefully, your parents will remember, or you can find the box or something.
- Measure the length and width of the TV, then check the math to see if you get the right diagonal length.