## NEED A CALCULATOR!

## Today: Reteach/Extend Pythagorean

Theorem

- If you got $2 / 2$ :You will do challenge problems in groups. Do not write on the pages, do your work on the back of your notes from yesterday.
- If you got $0 / 2$ or I/2:Work on or do corrections on the worksheet we are about to grade


## Triangle Area

- Remember, the area of a triangle is $A=\frac{1}{2} b h$.

Find the area of this triangle.


Warmup 3/(The maximum \# of right angles in a triangle)
ON A NOTECARD - not a warmup page!
Find the length of the third side of each triangle. Round to the nearest tenth if necessary.
Calculators are OK.
I)

2)


Pythagorean Theorem Worksheet: Answers

1) $x=5$
2) $x=50$
3) $x \approx 9.2$
4) $x=12$
5) $x=5$
II) $x=12$
6) $x \approx 13.7$
7) $\mathrm{No} ; 8^{2}+10^{2} \neq 12^{2}$
8) $x \approx 21.9$
9) $x=24$
10) $x \approx 11.3$
11) $x \approx 10.4$

## Pythagorean Theorem in 3D

- Find the length of the diagonal $\mathbf{H B}$ in the rectangular prism below.



## Critical Thinking

- The length of the hypotenuse of an isosceles right triangle is $\sqrt{288}$ units. Find the length of a leg.


## Measuring the room

- How many feet is it from corner to corner in this classroom? (Use the corner next to the origami shelf and the corner where the hall pass is hanging.) You may use a yardstick to help.

Understanding the Pyth.Thm. visually... In each figure below, the sides of three squares form a right triangle.

Triangle 1
Triangle 2
Triangle 3


## 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 a hint pass.

Back to your notes from yesterday...

## Common Pythagorean Triples

- 3, 4, 5
- 5, 12, I3
- 8, 15,17
- 7, 24, 25
-9, 40, 4 I
- MEMORIZE THESE!!! (It will pay off!)

Homework:

- None

