

Math 9 Section 1.3 – Pythagorean Theorem

Homework: Section 1.3; 1-3 all, 6-7 even, 8-11 – Answers on Pg. 362

(Don't use a calculator for questions in #2 and #3)

From last classes, we know we can calculate square roots with our calculator, but how do we estimate square roots if the number isn't a perfect square?

Example: Estimate $\sqrt{14}$ **without** a calculator!

For each example below, without a calculator determine...

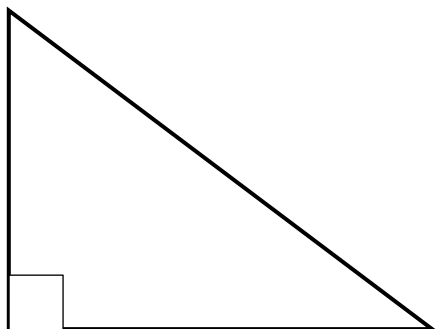
- 1) between which two integers is the value of the square root?
- 2) which one is it closer to?

$$\sqrt{39}$$

$$\sqrt{162}$$

$$-\sqrt{105}$$

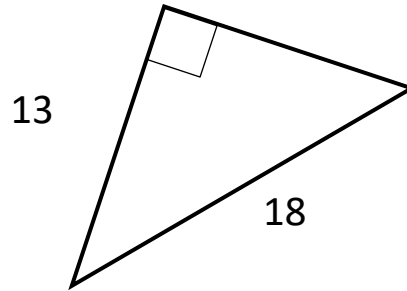
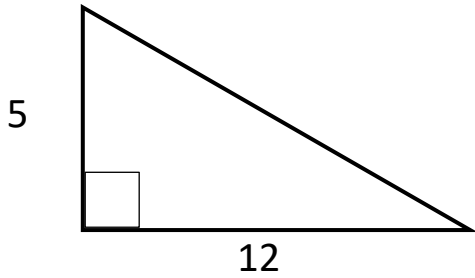
Pythagorean Theorem:



How to solve for missing side of a right triangle

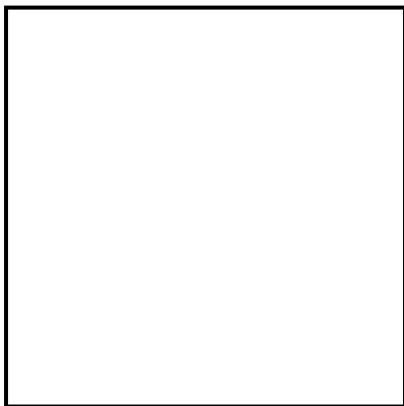
- 1) Label each side of the triangle with the letters _____, _____, _____
- 2) Figure out which equation to use
- 3) Put in numbers and simplify the right-hand side
- 4) Don't forget to _____ at the end!

Solve for the missing side exactly, then to one decimal place (if needed):

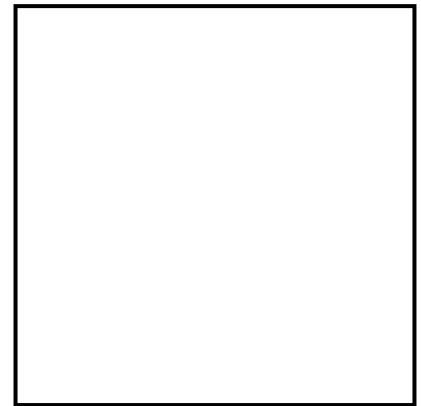


Proof for Pythagorean Theorem: Try to find 2 ways to cover the white square

#1)



#2)



#3) Label the sides of the green triangle

