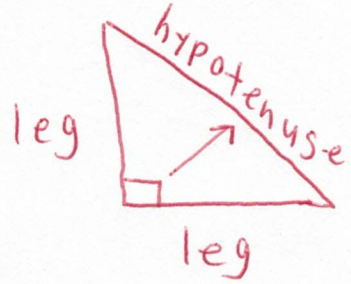
Pythagorean Theorem

UNIT _____ LESSON _____ INVESTIGATION _____ NOTES

Lesson Vocabulary

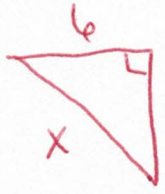
Pythagorean Theorem - For right triangles ONLY.

$a^2+b^2=c^2$ a and b are legs, c is the hypotenuse



ex.) Find x. Leave answer in simplest radical form.

a)



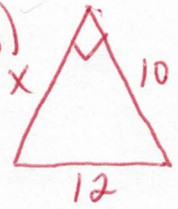
$6^2+8^2=x^2$

$36+64=x^2$

$\sqrt{100}=\sqrt{x^2}$

$10=x$

b)



$x^2+10^2=12^2$

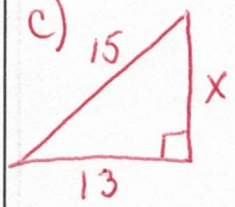
$x^2+100=144$

$-100 \quad -100$

$\sqrt{x^2}=\sqrt{44} \quad \sqrt{4\cdot 11}$

$x=2\sqrt{11}$

c)



$x^2+13^2=15^2$

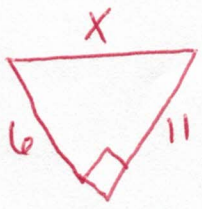
$x^2+169=225$

$-169 \quad -169$

$\sqrt{x^2}=\sqrt{56} \quad \sqrt{4\cdot 14}$

$x=2\sqrt{14}$

d)



$6^2+11^2=x^2$

$36+121=x^2$

$\sqrt{157}=\sqrt{x^2}$

$\sqrt{157}=x$