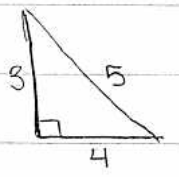
Geo 5

Pythagorean Theorem

In a right triangle with legs of length a & b and hypotenuse length c

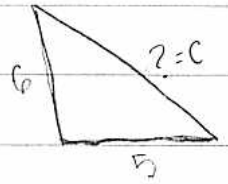
$$a^2+b^2=c^2$$

ex 

$3^2+4^2=5^2$

$9+16=25$

We can use this to find measurements.

ex 

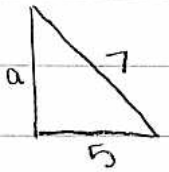
$6^2+5^2=c^2$

$36+25=c^2$

$61=c^2$

$\sqrt{61}=c$

$7.81\approx c$



$a^2+5^2=7^2$

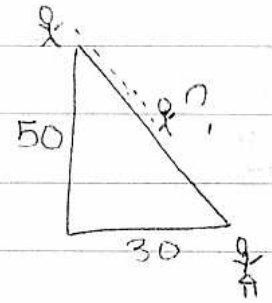
$a^2+25=49$

$a^2=24$

$a=\sqrt{24}$

$a\approx 4.89$

ex Bill is standing 50 yds north and 30 yds East of Jill. He starts running directly towards her. How far does he have to run before he reaches her?



$(50)^2+(30)^2=?^2$

about 58.309 yds