

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



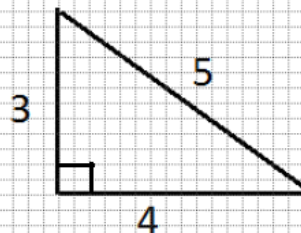
Pythagorous identity  
(right triangle axiom)

To verify Pythagorous  
identity we draw  
a right triangle with base 4  
unit and height 3 unit

we see that

$$3^2 + 4^2 = 5^2 \text{ by calculation}$$

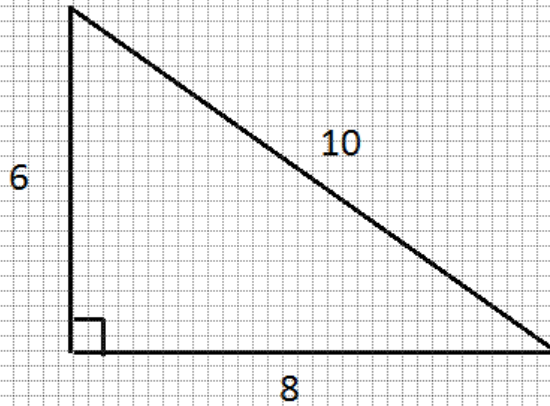
hence pythagorous  
identity is verified.....



Scale

4 small box

= 1 (on any axis)



Again to verify  
Pythagorean identity

we have

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

multiply b/s by  $2^2$

$$6^2 + 8^2 = 10^2$$

Similarly multiply (1) by  $3^2, 4^2, 5^2, 6^2$  to verify for other cases

hence identity holds for a large pairs  
(called Pythagorean Triplets)

Scale

4 small box = 1 unit  
(symmetric)