

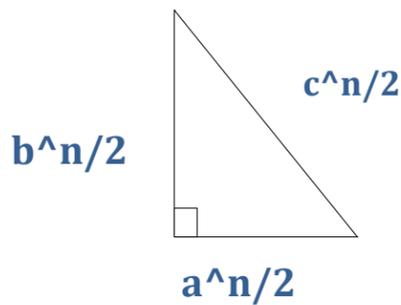
FERMAT LAST THEOREM

ORIGINAL PROOF

$$C^n = a^n + b^n \text{-----(A)}$$

$$[C^{n/2}]^2 = [a^{n/2}]^2 + [b^{n/2}]^2 \text{-----(B)}$$

So any equation like (A) can be similar to equation (B) which is equal to rightangle triangle.



$$c^{n/2} < a^{n/2} + b^{n/2} \text{-----(1)}$$

when $n=2$

$$c^2/2 < a^2/2 + b^2/2$$

$$c < a + b$$

$$\text{In } c^{n/2} < a^{n/2} + b^{n/2}$$

c, a, b are common and $n/2$ is variable.

so

$$C^{n/2} < a^{n/2} + b^{n/2} \text{---(1)}$$

$$C < a + b \text{-----(2)}$$

From (1)---- $c^{n/2} < a^{n/2} + b^{n/2}$

From(2) ---- $c^{n/2} < (a+b)^{n/2}$

So----- $a^{n/2} + b^{n/2} = (a+b)^{n/2}$

$$(a+b)^{n/2} = a^{n/2} + b^{n/2}$$

$$(a+b)^n = (a^{n/2} + b^{n/2})^2$$

$$(a+b)^n = a^n + 2a^{n/2} \times b^{n/2} + b^n \text{-----(3)}$$

So n should be $=2$ and n cannot be >2 according to equation (3)

Because if $n > 2$ then $(a+b)^n$ cannot be like $a^n + 2a^{n/2} \times b^{n/2} + b^n$

because there are three terms only.

a^n and $2a^{n/2} \times b^{n/2}$ and b^n

If $n > 2$ then there should be more than three terms. So n cannot be >2 and n should be $=2$

$n=2$

so equation (3) becomes

$$(a+b)^2 = a^2 + 2ab + b^2 \text{-----(4) and}$$

$C^n = a^n + b^n$ ----(A) becomes n cannot be >2 and $n=2$ then $c^2 = a^2 + b^2$

Then Fermat last theorem is proved according to Fermat original simple proof by G.L.W.A. Jayathilaka from Sri Lanka