

```
# This program will take 2 numbers from the user and
# find the hypotenuse using the Pythagorean theorem
```

```
import math
```

```
# Function to square the numbers
```

```
def squarefunction(length):
    square = length * length
    print "The square of a side is: ", square
    return square
# end of function
```

```
# Function to calculate Pythagorean theorem
```

```
def pythagorean(aside, bside):
    HypotenuseSquared = aside + bside
    hypotenuse = math.sqrt(HypotenuseSquared)
    print "The hypotenuse of the 2 sides is: ", hypotenuse
# end of function
```

```
# Get the length of the sides from the user
```

```
firstside = input("Enter the first side: ")
secondside = input("Enter the second side: ")
```

```
# Get the squares of 2 sides
```

```
firstsidesquared = squarefunction(firstside)
secondsidesquared = squarefunction(secondside)
# print "The firstside variable is: ", firstside
# print "The secondside variable is: ", secondside
```

```
# Put the squares into the Pythagorean function
```

```
pythagorean(firstsidesquared, secondsidesquared)
```



Pythagorean Theorem

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For any right triangle with sides a and b and hypotenuse h , the square of the hypotenuse is equal to the sum of the squares of the other two sides.

$$h^2 = a^2 + b^2$$

