

Forum:[Hack Forums](#)

Thread: [\[py challenge\] challenge #1](#)

SupreemJuggalo - December 23, 2013, 12:09 pm

hey all, this is to test your python skills. (i hope you like them, if i get good feedback i will post more)

questions:

1. Write a function called hypotenuse that returns the length of the hypotenuse of a right triangle given the lengths of the two legs as arguments.
2. Write a function called circle_area that takes in two points (each with an x and a y value) which are the center of a circle and a point on the circumference of the circle and then calculates the area of that circle. An example of the function call would be:
Ex. circle_area(4,1,6,12)

post the source code in [Pastebin](#) or if you must you can use the "Code and" tags (code tags)

ImportUsername - December 23, 2013, 12:38 pm

I would hope that you're not using this for homework under the ruse of a challenge...

Spoiler [\(Click to View\)](#)

<http://pastebin.com/f1HfGa4p>

SupreemJuggalo - December 23, 2013, 12:58 pm

(Dec 23, 2013 01:38 PM)ImportUsername Wrote: [\[CITE\]](#) I would hope that you're not using this for homework under the ruse of a challenge...

Spoiler [\(Click to View\)](#)

<http://pastebin.com/f1HfGa4p>

the second question you answered looks correct but the answer for the first one should look more like this

```
Code import math
def hypotenuse(a,b): #pythagoras's theorem
    c=a**2+b**2
    hypo=math.sqrt(c) #square roots
    print(hypo)
```

```
#hypotenuse(3,4)
```

also, no its not for homework LOL, im not taking my python course this year.

ImportUsername - December 23, 2013, 1:09 pm

(Dec 23, 2013 01:58 PM)SupreemJuggalo Wrote: [\[CITE\]](#) the second question you answered looks correct but the answer for the first one should look more like this

Code import math

```
def hypotenuse(a,b): #pythagoras's theorem
    c=a**2+b**2
    hypo=math.sqrt(c) #square roots
    print(hypo)
```

```
#hypotenuse(3,4)
```

also, no its not for homework LOL, im not taking my python course this year.

Why would I calculate the hypotenuse by squaring each and then finding the square root of the sum when there is already a function to find the hypotenuse?

from the python docs (<http://docs.python.org/2/library/math.html>):

```
"math.hypot(x, y)
```

```
Return the Euclidean norm, sqrt(x*x + y*y)"
```

It's a waste of lines of code

Also the answer you gave is wrong according to your question. You say to make a function that "returns the length of the hypotenuse", but the one you gave as a correct answer only prints it

glob - December 23, 2013, 1:20 pm

Spoiler ([Click to View](#))

PHP Code

```
<?php
```

```
import math
```

```
hypotenuse=lambda x,y:(x*x+y*y)**2
```

```
circle_area=lambda a,b,c,d:((c-a)**2+(d-b)**2)*math.pi
```

Trolkar8 - December 24, 2013, 2:41 am

Haha, I guess he is not very experienced with python...

Goodies - December 24, 2013, 2:44 am

Here's mine:

PHP Code

```
<?php
```

```
import math #lol kinda cheating but not really
```

```
hypotenuse = lambda x, y:math.sqrt((x)**2 + (y)**2)
```

```
circle_area = lambda a, b, c, d:(((c-a) ** 2)+((d-b)**2)) * math.pi
```

Did I do good?

DpzFAsq4UEK8 - December 24, 2013, 3:00 am

Here's mine

PHP Code

```
<?php
```

```
#Hypotenuse
```

```
sqrt = lambda a:a**0.5
```

```
hypotenuse = lambda c,d:sqrt(((c**2)+(d**2)))
```

PHP Code

```
<?php
```

```
#Circle
```

```
from math import pi,sqrt
```

```
circle_area = lambda e,f,g,h: pi*(sqrt((g-e)**2+(h-f)**2))**2
```

(Dec 24, 2013 03:44 AM)Goodies Wrote: [\[CITE\]](#) Here's mine:

PHP Code

```
<?php
import math #lol kinda cheating but not really
hypotenuse = lambda x, y:((x * x) + (y*y)) ** 2
circle_area = lambda a, b, c, d:(((c-a) ** 2)+((d-b)**2)) * math.pi
```

Did I do good?
Isn't square root the 1/2 power of a number?

ImportUsername - December 24, 2013, 7:18 am

(Dec 24, 2013 04:00 AM)korn36 Wrote: [\[CITE\]](#) Here's mine
PHP Code

```
<?php
#Hypotenuse
sqrt = lambda a:a**0.5
hypotenuse = lambda c,d:sqrt(((c**2)+(d**2)))
```

PHP Code

```
<?php
#Circle
from math import pi,sqrt
circle_area = lambda e,f,g,h: pi*(sqrt((g-e)**2+(h-f)**2))**2
```

Isn't square root the 1/2 power of a number?
Yea Goodies is a bit off on his hypotenuse. For example with the one he gave, hypotenuse(3,4) returns 625 instead of 5. I guess that's what happens when you cheat cough cough

Also korn why do you make this:
sqrt = lambda a:a**0.5
when you could import sqrt from math?

DpzFAsq4UEK8 - December 24, 2013, 8:15 am

(Dec 24, 2013 08:18 AM)ImportUsername Wrote: [\[CITE\]](#) Yea Goodies is a bit off on his hypotenuse. For example with the one he gave, hypotenuse(3,4) returns 625 instead of 5. I guess that's what happens when you cheat cough cough

Also korn why do you make this:
sqrt = lambda a:a**0.5
when you could import sqrt from math?
I didn't want to use the math module on that one (and I know that sqrt is in math module...).
And on that second one I used math because I thought it would give me more precision for the pi number than assigning the pi variable manually.

Goodies - December 24, 2013, 10:51 am

(Dec 24, 2013 08:18 AM)ImportUsername Wrote: [\[CITE\]](#) Yea Goodies is a bit off on his hypotenuse. For example with the one he gave, hypotenuse(3,4) returns 625 instead of 5. I guess that's what happens when you cheat cough cough

Also korn why do you make this:
sqrt = lambda a:a**0.5
when you could import sqrt from math?
I didn't cheat lol I BORROWED. LOL
I'm not good with logic O.o

That's not the part of python I work with.

Eh... updated. Pretty sure it works now.