Grader

Grader

10.0/10.0 points (ungraded)

A regular polygon has `n` number of sides. Each side has length `s`.

- The area of a regular polygon is: $\frac{0.25*n*s^2}{tan(\pi/n)}$
- The perimeter of a polygon is: length of the boundary of the polygon

Write a function called `polysum` that takes 2 arguments, `n` and `s`. This function should sum the area and square of the perimeter of the regular polygon. The function returns the sum, rounded to 4 decimal places.

Hint: What to import?

Which library should you be importing at the beginning of your code in order to call the `tan` function and to get the pi constant?

This is an optional exercise, but great for extra practice!

```
13
14
15 def area(n, s):
16     """:arg:n = int, número de lados de um polígono;
17                s = float, tamanho de cada lado de um polígono regular
18
19                out: float (4 casas decimais), área de um polígono"""
20     return (0.25 * n * s ** 2) / math.tan(math.pi / n)
```

```
21
22
23 def polysum(n, s):
24     """:arg:n = int, número de lados de um polígono;
25             s = float, tamanho de cada lado de um polígono regular
26
27             out: float (4 casas decimais), a soma da área com o quadrado do pe
28     return round(area(n, s) + (perimetro(n, s)**2), 4)
```

Press ESC then TAB or click outside of the code editor to exit

Correta

Test results

Hide output

CORRECT

Test: polysum(24, 39)

Output:

945414.852

Test: polysum(21, 92)

Output:

4027437.597

Test: polysum(6, 22)

Output:

18681.4689

Test: polysum(11, 74)

Output:

```
713882.2441
```

Test: polysum(77, 71)

Output:

```
32265187.6748
```

Test: polysum(88, 49)

Output:

```
20072326.6694
```

Test: polysum(98, 58)

Output:

```
34877952.7381
```

Test: polysum(86, 92)

Output:

```
67579057.2798
```

Test: polysum(50, 2)

Output:

```
10794.7272
```

Test: polysum(44, 89)

Output:

```
16553306.5644
```

Hide output

Enviar

polysum Grader

Topic: Week 2 / polysum Grader

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?	Code working differently in Spyder and Grader Hi, I would like to check if there any issue with my codes, because it works perfectly in the sp...	4
☑	Spoiler: I don't understand what is wrong. Can you help me? This is my current answer. import math def polysum(n, s): area = (0.25*n*s**2)/math.tan(ma...	1 new
💬	Rare random tests Random tests are including rare polygons like 1 side of length 75 or "polysum(1, 75)" with su...	1
💬	[SPOILER] what am I missing? grader keeps on giving me error msg def polysum (n, s): area= (0.25*n*(s**2))/ (math.tan(math.pi/n)) perimeter= n * s sum = area ...	3 new 1
💬	I rock import math def polysum(n , s) : N = 0.25*n*(s**2) D = math.tan(math.pi/n) area = N/D peri...	1
?	Is this completely optional? If I do not complete this problem, it will not affect my grade in the course, right?	2
☑	How come a function hand over a result to the grader without being invoked with the arguments? I did "Problem set 2" before these practice questions. There, I had to invoke the functions I w...	3

?	[SPOILER] Don't know why the test gives me this error message My code is: import math def polysum(a,p): return round(a + pow(p,2),4) def area(n,s): return (...	2
?	Show Answer?? Where is the show answer???	2
?	What is wrong with numpy? I imported numpy in my compiler and it worked fine. But the grader wouldn't accept my code...	3
💬	beware the "digon" Hi, I got an 'incorrect' for one testing scenario (i.e. polysum(2, 27)). I had included a validation ...	3
?	Does polysum count towards the course grade? I've done this part, but I don't see it anywhere on the progress tab.	3
💬	Tips: ONLY READ IF YOU'RE STUCK	