1.	An if statement can have at most how many else parts?	1 / 1 балл
	 1 0 Unlimited, i.e., 0 or more Правильно	
	Correct.	
2.	Consider the Boolean expression not (p or not q) . Give the four following values in order, separated only by spaces:	1 / 1 балл
	the value of the expression when p is True , and q is True ,	
	the value of the expression when p is True , and q is False ,	
	the value of the expression when p is False , and q is True ,	
	the value of the expression when p is False , and q is False ,	
	Remember, each of the four results you provide should be True or False with the proper capitalization.	
	False False True False	

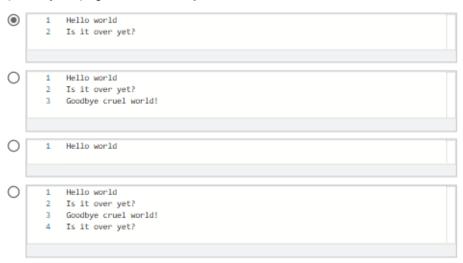
1	,	v	a	и	u.

- A common error for beginning programmers is to confuse the behavior of print statements and return statements.
 - print statements can appear anywhere in your program and print a specified value(s) in the console. Note
 that execution of your Python program continues onward to the following statement. Remember that
 executing a print statement inside a function definition does not return a value from the function.
 - return statements appear inside functions. The value associated with the return statement is
 substituted for the expression that called the function. Note that executing a return statement terminates
 execution of the function definition immediately. Any statements in the function definition following the
 return statement are ignored. Execution of your Python code resumes with the execution of the
 statement after the function call.

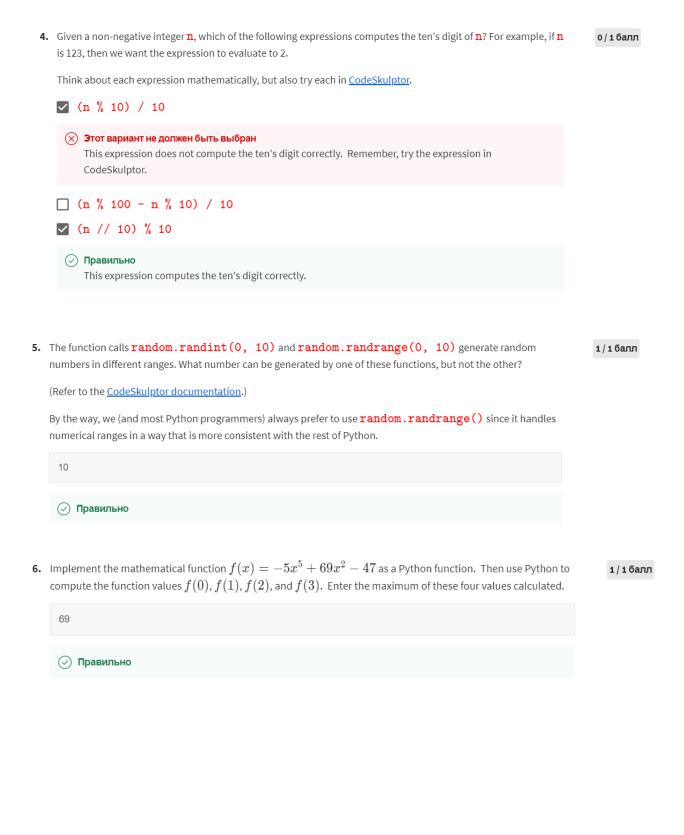
As an example to illustrate these points, consider the following piece of code:

Note that this code calls the function do_stuff in the last print statement. The definition of do_stuff includes two print statements and one return statement.

Which of the following is the console output that results from executing this piece of code? While it is trivial to solve this question by cutting and pasting this code into CodeSkulptor, we suggest that you first attempt this problem by attempting to execute this code in your mind.



Правильно



The equation $FV = PV(1+rate)^{periods}$ relates the following four quantities.

- The present value (PV) of your money is how much money you have now.
- The future value (FV) of your money is how much money you will have in the future.
- The nominal interest rate per period (rate) is how much interest you earn during a particular length of time, before accounting for compounding. This is typically expressed as a percentage.
- The number of periods (periods) is how many periods in the future this calculation is for.

Finish the following code, run it, and submit the printed number. Provide at least four digits of precision after the decimal point.

```
def future_value(present_value, annual_rate, periods_per_year, years):
    rate_per_period = annual_rate / periods_per_year
    periods = periods_per_year * years

# Put your code here.

print "$1000 at 2% compounded daily for 3 years yields $", future_value(1000, .02, 365, 3)
```

Before submitting your answer, test your function on the following example.

future_value(500, .04, 10, 10) should return 745.317442824

1061.83480113



8. There are several ways to calculate the area of a regular polygon. Given the number of sides, n, and the length of each side, s, the polygon's area is

1/1балл

$$\frac{ns^2}{4\tan(\frac{\pi}{n})}$$

For example, a regular polygon with 5 sides, each of length 7 inches, has area 84.3033926289 square inches.

Write a function that calculates the area of a regular polygon, given the number of sides and length of each side. Submit the area of a regular polygon with 7 sides each of length 3 inches. Enter a number (and not the units) with at least four digits of precision after the decimal point.

Note that the use of inches as the unit of measurement in these examples is arbitrary. Python only keeps track of the numerical values, not the units.

32.705211996



9. Running the following program results in the error

SyntaxError: bad input on line 8 ('return').

Which of the following describes the problem?

1	<pre>def max_of_2(a, b):</pre>				
2	if a > b:				
3	return a				
4	else:				
5	return b				
6					
7	def max_of_3(a, b, c):				
8	return max_of_2(a, max_of_2(b, c))				

()	Mι	SSI	ın	g	CO	lon

- Misspelled function name
- Misspelled variable name
- Extra parenthesis
- Misspelled keyword
- Missing parenthesis
- O Wrong number of arguments in function call
- Incorrect indentation
 - Правильно

Correct. The body of the function definition for max_of_3 () should be indented, but it is not.

10. The following code has a number of syntactic errors in it. The intended math calculations are correct, so the only errors are syntactic. Fix the syntactic errors.

1/1балл

Once the code has been fully corrected, it should print out two numbers. The first should be 1.09888451159. Submit the **second** number printed in <u>CodeSkulptor</u>. Provide at least four digits of precision after the decimal point.

```
define project_to_distance(point_x point_y distance):

dist_to_origin = math.square_root(pointx ** 2 + pointy ** 2)

scale == distance / dist_to_origin

print point_x * scale, point_y * scale

project-to-distance(2, 7, 4)
```

3.84609579056