Contents

1 Basic Test Results

```
Starting tests...
Wed Nov 12 18:01:13 IST 2014
1b9972952fa146949f6e151f836e7b67f7ea4561  -


-rw-r--r-- ransha/stud    1476 2014-11-12 17:58 ex2a.py
-rw-r--r-- ransha/stud    1306 2014-11-12 17:59 ex2b.py
-rw-r--r-- ransha/stud     588 2014-11-12 17:18 README

Testing README...
Done testing README...

Running presubmit tests...
result_code    ex2a_example    4    1
result_code    ex2b_example    8    1
Done running presubmit tests

Running full tests... output not printed
Done running full tests

Tests completed
```

2 README

```
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203781000
Ran Shaham


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=  README for ex2: Conditions =
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==================
=  Description:  =
==================
I created in this exercise two files: one that calculates the
area and perimeter of shapes and another that calculates simple
operations between two numbers.

============================
=  List of submitted files: =
============================

README        This file
ex2a.py        Contains the shape area and perimeter program
ex2b.py     Contains the calculator program.
```

3 ex2a.py

```
1  ##############################################################################
2  #FILE:ex2a.py
3  #WRITER: Ran Shaham,ransha,203781000
4  #EXERCISE: intro2cs ex2
5  #DESCRIPTION:
6  #A simple program that calculates the area and perimeter of
7  #user's chosen shape.
8  ##############################################################################
9
10 import math
11
12 dont=False      #a boolean variable to prevent the program from running the
13                 # print command in case the shape number is wrong.
14 shape=int(input("Choose a shape:"))   #gets the input and divide to cases:
15
16 if shape==1:                          #rectangle case (and calculations...)
17     rec_width=float(input("width:"))
18     rec_height=float(input("height:"))
19     area=rec_width * rec_height
20     perimeter=(rec_height + rec_width) * 2
21 elif shape==2:                        #circle case
22     radius=float(input("radius:"))
23     area=math.pi * (radius ** 2)
24     perimeter=2 * math.pi * radius
25 elif shape==3:                        #triangle case
26     a=float(input("a:"))
27     b=float(input("b:"))
28     c=float(input("c:"))
29     heron_s=(a + b + c) / 2
30     area=math.sqrt(heron_s * (heron_s - a) * (heron_s - b) * (heron_s - c))
31     perimeter=a + b + c
32 else:                                 #in case no legal shape num was entered
33     print("Please enter a valid number for shape: 1 for rectangle, 2 for circle,"
34           +" or 3 for triangle")
35     dont=True
36 if dont==False:
37     print("area:",area)
38     print("perimeter:",perimeter)
```

4 ex2b.py

```
1  ################################################################################
2  #FILE: ex2b.py
3  #WRITER: Ran Shaham,ransha,203781000
4  #EXERCISE: intro2cs ex2
5  #DESCRIPTION:
6  #a calculator that gets two numbers and an operator
7  #and outputs the result.
8  ################################################################################
9
10 num1=int(input('num1:'))   #gets the input for the two numbers
11 num2=int(input('num2:'))
12 operator=input('operation:') #gets input for the operator
13 dont=False               #a boolean to prevent the program from running
14                          # the result print (in case the 2nd num is 0)
15 if operator=='+':
16     result=num1+num2
17 elif operator=='-':
18     result=num1-num2
19 elif operator=='*':
20     result=num1*num2
21 elif operator=='/':
22     if num2==0:             # a second condition to test if the second num is 0
23         print("Can't divide by 0")
24         dont=True
25     else:
26         result=num1//num2  #if not, the result is calculated
27 elif operator=='%':
28     if num2==0:         #same as division
29         print("Can't divide by 0")
30         dont=True
31     else:
32         result=num1%num2
33 else:                   #if no legal operator was entered:
34     print('Unknown operator')
35     dont=True
36 if dont==False:         #as long as no bad inputs were made, it prints result
37     print(result)
```