<table>
<tr><td colspan="3" align="center">**Online Homework Package**
Created by : Elsit and Satya Mandal</td></tr>
<tr><td>Course Id :Math 105</td><td>Topics in Mathematics</td><td>Semester : Summer2017</td></tr>
<tr><td colspan="3" align="center">Instructor :Satya Mandal
Line No : 84895</td></tr>
<tr><td>Homework No: 27</td><td>Total Points :50</td><td>Due Date:(YYYY-MM-DD)
2017-07-27</td></tr>
</table>

Question-1	It is believed that, due to pollution, the mean weight μ of salmon in a river is lower than last year's mean of 23 pounds. To test this concern about pollution, 46 fish were caught. The mean weight of the fish was found to be $\underline{x}$= 21.1 pounds and standard deviation s=6. Here we test $$H_0 : \mu = 23$$ $$H_A : \mu < 23.$$ Compute the value of the test statistics.

Answer Question-1	This is a Numerical-Answer Type Question Statistics Value =
Points	5.00

Question-2	Decide if it is a Two Tail, Left Tail or Right Tail Test and compute the p-value of the collected data in Question 1.

Answer Question-2	This is a Numerical-Answer Type Question p-Value =
Points	5.00

Question-3	Refer to Question 1. What would be the lowest level of significance, percent among .1, .5, 1 , 2, 3, 4, 5, 6, 7, 8, 9, 10 percent, at which you would accept that the mean weight has reduced?

Answer Question-3	This is a Numerical-Answer Type Question Lowest Percent =
Points	5.00

Question-	Refer to Question 1. At 5 percent level of significance, would accept that that the mean weight has

4	reduced? Write 0 if the answer is NO and 1 if answer in YES

Answer Question-4	This is a Numerical-Answer Type Question
	Answer =
Points	5.00

Question-5	Due to favorable weather conditions, it is beleived that the mean diameter μ of the pumpkins in the market is higher than last years mean of 34 cm. To test, a sample of 26 pumpkins were examined. The sample mean was found to be 37 cm and the sample standard deviation was s = 11 cm. Here we test $$H_0 : \mu = 34$$ $$H_A : \mu > 34.$$ Compute the value of the test statistics.

Answer Question-5	This is a Numerical-Answer Type Question
	Statistics Value =
Points	5.00

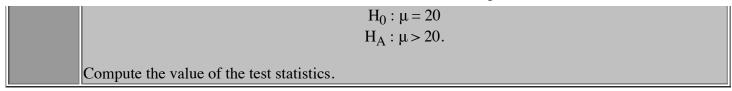| **Question-6**	Decide if it is a Two Tail, Left Tail or Right Tail Test and compute the p-value of the collected data in Question 5.

Answer Question-6	This is a Numerical-Answer Type Question
	p-Value =
Points	5.00

Question-7	Refer to Question 5. What would be the lowest level of significance, percent among .1, .5, 1 , 2, 3, 4, 5, 6, 7, 8, 9, 10 percent, at which you would accept that the mean diameter is higher?

Answer Question-7	This is a Numerical-Answer Type Question
	Lowest Percent =
Points	5.00

Question-8	The mean time μ taken to by a student to drive to the work is beleived to be higher than 20 minutes. A sample of 31 such driving time was collected. The sample mean and standard deviation was found to be $\underline{x}$ = 24 minutes, s = 8 minutes. Here we test

$$H_0 : \mu = 20$$
$$H_A : \mu > 20.$$

Compute the value of the test statistics.

Answer Question-8	This is a Numerical-Answer Type Question
	Statistic Value =
Points	5.00

Question-9	Decide if it is a Two Tail, Left Tail or Right Tail Test and compute the p-value of the collected data in Question 8.

Answer Question-9	This is a Numerical-Answer Type Question
	p-Value
Points	5.00

Question-10	Refer to Question 8. What would be the lowest level of significance, percent among .1, .5, 1 , 2, 3, 4, 5, 6, 7, 8, 9, 10 percent, at which you would accept that mean driving time is higher than 18.7 inches?

Answer Question-10	This is a Numerical-Answer Type Question
	Lowest Percent =
Points	5.00

Logout