Batch	Agent1	Agent2
1	7.7	8.5
2	9.2	9.6
3	6.8	6.4
4	9.5	9.8
5	8.7	9.3
6	6.9	7.6
7	7.5	8.2
8	7.1	7.7
9	8.7	9.4
10	9.4	8.9
11	9.4	9.7
12	8.1	9.1

t-Test: Paired Two Sample for Means

		Agent1	*Agent2*
Mean		8.2500	8.6833
Variance		1.0591	1.0779
Observations		12.0000	12.0000
Pearson Correlation		0.9011	
Hypothesized Mean Difference		-	
df		11.0000	
t Stat	-	3.2639	
P(T<=t) one-tail		0.0038	
t Critical one-tail		1.7959	
P(T<=t) two-tail		0.0075	
t Critical two-tail		2.2010	

Mean Difference	-	0.43

TWO-TAIL TEST INTERPRETATION

The "P(T <= t) two-tail" value is given as 0.0075. This is significant at the 1% level
Sample mean for Agent1 is 8.25, for Agent2 is 8.68

The mean difference between Agent1 and Agent2 is -0.43 in favour of Agent1

To determine whether the null hypothesis

I compare the t-Stat with the critical value
- Critical value for two-tail is: 2.2010 left and right
- **t-Stat** falls below -2.2010 therefore the null-hypothesis can be rejected, OR

I compare the "P(T <= t) two-tail"
- P(T <= t) two-tail is 0.0075 which is less than 0.05 therefore the null hypothesis can be rejected

ONE-TAIL TEST INTERPRETATION

t Stat	-	3.2639
P(T<=t) one-tail		0.0038
t Critical one-tail		1.7959

The t Stat (-3.2639) falls well beyond the t-Critical (left) of (-1.7959). Therefore according to the data, we must reject the null hypothesis.

The t-Stat is negative therefore the one-tail p-value is for the LEFT tail and we must check for LESS THAN

"P(T <= t) one tail" (0.0038) is LESS THAN 0.05 which confirms to reject the null hypothesis.

If the t-Stat was a POSITIVE value (+3.2639):

We take the *complement* of the one-tail which yields
1 - "P(T <= t) one tail" (0.0038) = 0.9962

0.9962 GREATER THAN 0.05, therefore we accept the hypothesis in relation to Agent 1