

Answer on Question #55615 – Math - Statistics and Probability

Paired T-Test and CI: WeightBeginning, WeightEnd

Paired T for WeightBeginning - WeightEnd

	N	Mean	StDev	SE Mean
WeightBeginning	20	64.74	5.99	1.34
WeightEnd	20	62.61	6.56	1.47
Difference	20	2.133	2.260	0.505

95% CI for mean difference: (1.075, 3.191)

T-Test of mean difference = 0 (vs \neq 0): T-Value = 4.22 P-Value = 0.000

Research Question: On average, do adolescent females who take part in the “Get in Shape” programme experience a significant change in their body weights?

Hypothesis Test:

Solution

95% CI for mean difference: (1.075, 3.191) doesn't include zero, so we can say that on average adolescent females who take part in the “Get in Shape” programme experience do a significant change in their body weights.

Also P-Value = 0.000 for T-Test of mean difference means that at 0.001 significance level we can reject the null hypothesis that mean difference = 0 and conclude that on average adolescent females who take part in the “Get in Shape” programme experience do a significant change in their body weights.