Answers to "Test Yourself" No. 16

Compute the Tangent Bearing

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Approach: Compute Δ, with which we can compute the bearing need.

An equation to use: $\ell = r\Delta$ where Δ is in radians

So: $345.4410 = r\Delta$

and

$386.8940 = (r + 60)\Delta$

therefore

$r = 499.9990$

and

$\Delta = 345.4410 / 499.9990 = 0.69088$ *radians*

and

$\Delta = 39°35'05''$

and therefore

Bearing is $S50°24'55''E$