Problem-3

Assumptions

We are given a graph and some values of e and s.

We don’t have value of s at e=0. From the graph, the best I can decipher is that it we can form a rectange between that gap of e=0 and e=0.02. Even if my guess is wrong and graph is something completely different than what is shown, the rectangle is our best possible approximation at the point.

Calculations

$$Area = Ar.(Rectangle) + Ar.(Trapezoids)$$
$$= e_1 s_1 + \sum_{i=2}^{n} \left((e_i - e_{i-1}) * \frac{s_i + s_{i-1}}{2} \right)$$

Output

```
>> e = [0.02 0.05 0.1 0.15 0.2 0.25];
>> s = [40 37.5 43 52 60 55];
>> T3_20110065(e, s)

ans =

  12.025000000000000
```