

1. A function $T(x)$ is continuous and differentiable with values given in the table at the right.

x	1.0	1.4	1.8	2.2	2.6
$T(x)$	1.06	2.2	3.2	2.8	3.1

Use the values in the table to estimate the following

A. $T'(1.4) \approx$ $T'(2.4) \approx$

B. $\lim_{h \rightarrow 0} \frac{T(1.4+h) - T(1.4)}{h} \approx$

C. The average rate of change of $T(x)$ between $x = 1.4$ and $x = 2.4$.

D. The rate of change of $T(x)$ at $x = 1$.

E. The equation of the tangent line to $T(x)$ at $x = 1$.

2. The values of the derivative $F'(x)$ are given in the table:

x	12	12.4	13
$F'(x)$	2	3	3.5

Estimate the values of $F(x)$ in the table below.

x	12	12.4	13
$F(x)$	8		

3. Let $F(x) = 10^x$. Estimate $F'(1)$ using a numerical approach. Give your answer to 4 decimal places.

4. $G(s) = \frac{1}{s^2}$. Find $G'(2)$ using an algebraic approach. Give an exact answer.