

Name _____ ~~No Calculators.~~ Present neatly. Score _____.

1.

Suppose that we have two resistors connected in parallel with resistances R_1 and R_2 measured in ohms (Ω). The total resistance, R , is then given by,

$$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2}$$

Suppose that R_1 is increasing at a rate of $0.4 \Omega / \text{min}$ and R_2 is decreasing at a rate of $0.7 \Omega / \text{min}$. At what rate is R changing when $R_1 = 80 \Omega$ and $R_2 = 105 \Omega$?

Your work:
