

(8.1) Arc Length

Full Name: _____

Find the length of the arc of each curve on the interval of interest.

1. $\frac{8}{27} (10^{3/2} - 1)$

2. $\frac{2}{243} (82^{3/2} - 1)$

3. $\frac{1}{2} \left(\left(5^4 - \frac{1}{3(5^3)} \right) - \left(\frac{2^5}{5} - \frac{1}{3(2^3)} \right) \right)$

4. $\ln |\sqrt{2} + 1|$