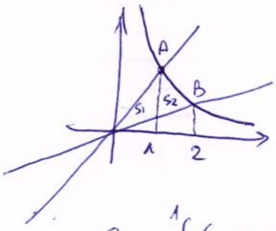
67.



A: $\frac{1}{x^3} = x \rightarrow x = \pm 1$

ברביע הראשון $x=1$

B: $\frac{1}{x^3} = \frac{x}{16} \rightarrow 16 = x^4$

$x = \pm 2$

ברביע הראשון $x=2$

$S_1 = \int_0^1 \left(x - \frac{x}{16}\right)dx = \int_0^1 \frac{15x}{16}\,dx = \frac{15x^2}{32}\Big|_0^1 = \frac{15}{32}$

$S_2 = \int_1^2 \left(\frac{1}{x^3} - \frac{x}{16}\right)dx = -\frac{1}{2x^2} - \frac{x^2}{32}\Big|_1^2 = \left(-\frac{1}{8} - \frac{1}{8}\right) - \left(-\frac{1}{2} - \frac{1}{32}\right) = \frac{9}{32}$

$S_1 + S_2 = \frac{3}{4}$