
1. (1 pt) Find the area of the surface obtained by rotating the curve

$$y = 3x^3$$

from $x = 0$ to $x = 3$ about the x -axis.

2. (1 pt) Find the area of the surface obtained by rotating the curve

$$y = \sqrt{2x}$$

from $x = 0$ to $x = 1$ about the x -axis.

3. (1 pt) Find the area of the surface obtained by rotating the curve

$$y = 1 + 4x^2$$

from $x = 0$ to $x = 9$ about the y -axis.

4. (1 pt) Find the area of the surface obtained by rotating the curve

$$x = 5e^{2y}$$

from $y = 0$ to $y = 5$ about the y -axis.
