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

$$y = 4x^3$$

from  $x = 0$  to  $x = 6$  about the  $x$ -axis.

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

$$y = \sqrt{6x}$$

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

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

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

from  $x = 0$  to  $x = 7$  about the  $y$ -axis.

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

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

from  $y = 0$  to  $y = 2$  about the  $y$ -axis.

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