MA 126 — Fall 2016 — Prof. Clontz — Quiz

Name: _____

Choose D for "None of these"

14. What integral is produced by the cylindrical shell method for the volume of the solid of revolution obtained by rotating the triangle with vertices $(0,0),(2,0),(0,4)$ around the y-axis?

    A. $\pi \int_0^2 (2x^2)(2x+4)\,dx$

    B. $\int_{-4}^4 (2\pi - y)\,dy$

    C. $2\pi \int_0^2 (x)(4-2x)\,dx$

15. What integral is produced by the cylindrical shell method for the volume of the solid of revolution obtained by rotating the region bounded by $x=0, y=2, x=y^3$ around the axis $y=-1$

    A. $2\pi \int_0^2 (y+1)(y^3), dy$

    B. $2\pi \int_8^0 (y-1)(y^3+1)\,dy$

    C. $2\pi \int_1^3 (2x)^2(\sqrt[3]{x})\,dx$