Chapter 6 Quiz Make-up

1. Find the area of the region enclosed by $y = 4x - x^2$ and y = 3.



2. Find the area of the region enclosed by $y = 5 - x^2$ and y = -x + 3 between x = 0 and x = 2.



3. Find the area of the region enclosed by $x = 4y - y^2$ and x + y = 4.



· y=1

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4. Find the value of the solid that is obtained when the region under the curve $y = x^4$ over the interval [2, 4] is revolved about the x-axis.

A)
$$\frac{261,632\pi}{9}$$
 B) 261,632 π C) $\frac{\pi}{9}$ D) 9π E) $\frac{261,632\pi}{18}$

5. Find the value of the solid that is obtained when the region enclosed by the curves $x = y^3$, x = 0, y = 1, y = 3 is revolved about the y-axis.

$$y=3$$

 $y=3$
 $y=1$
 $y=1$
 $x=y^3$
A) $\frac{2,186\pi}{7}$ B) $2,186\pi$ C) $\frac{\pi}{7}$ D) 7π E) $\frac{2,186\pi}{14}$

6. Use the method of washers to find the volume of the solid that results when the area of the region enclosed by $y = x^2$, y = 1, and x = 0 is revolved about the x axis.