Name_____ Date_____ Period_____

Worksheet 10.5—Surface Area
Show all work on a separate sheet of paper. Calculator on #1 only.

Free Response & Short Answer

1. (Calculator Permitted—Show your set up) Find the area of the surface obtained by rotating the curve $y = \sqrt{x}$ about the *x*-axis on the interval $4 \le x \le 16$.

Multiple Choice

2. (No Calculator—Show your work) The area of the surface of revolution formed by revolving the graph of $f(x) = x + 1$ from $0 \le x \le 1$ about the *x*-axis is which of the following?

(A) $\frac{3\sqrt{2}}{2}\pi$

(B) $3\sqrt{2}\pi$

(C) $2\sqrt{2}\pi$

(D) $3\sqrt{5}\pi$

(E) $2\sqrt{5}\pi$