Exam

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the exact length of the curve analytically by antidifferentiation.

1) $y = \dfrac{3}{8}(x^{4/3} - 2x^{2/3})$ from $x = 1$ to $x = 27$ 1) _____

    A) 93   B) $\dfrac{87}{2}$ C) $\dfrac{153}{4}$ D) 36

2) $y = \dfrac{1}{6}x^3 + \dfrac{1}{2x}$ from $x = 1$ to $x = 4$ 2) _____

    A) 11   B) $\dfrac{87}{4}$ C) $\dfrac{87}{8}$ D) $\dfrac{261}{32}$

3) $x = \dfrac{y^4}{8} + \dfrac{1}{4y^2}$ from $y = 1$ to $y = 2$ 3) _____

    A) $\dfrac{33}{8}$ B) 2   C) $\dfrac{33}{16}$ D) $\dfrac{17}{8}$

4) $x = \dfrac{2}{3}(y - 1)^{3/2}$ from $y = 1$ to $y = 4$ 4) _____

    A) $\dfrac{14}{3}$ B) $\dfrac{21}{2}$ C) 7   D) $\dfrac{10}{3}$ E) 1

1

1) D
2) C
3) C
4) A