

Answers to Differentials Review (ID: 1)

1) $dy = -3x^2 dx$

2) $dy = 3x^2 dx$

3) $dy = -\frac{1}{2x^{\frac{1}{2}}} dx$

4) $dy = 3x^2 dx$

5) $dy = -3x^2 dx$

6) $dy = (2x + 2) dx$

7) $\frac{36207}{50} = 724.14$

8) $\frac{641}{160} \approx 4.0063$

9) $\frac{180\sqrt{3} - \pi}{360} \approx 0.8573$

10) $\frac{481}{120} \approx 4.0083$

11) $\pm \frac{384\pi}{5} \approx \pm 241.2743 \text{ ft}^3$

12) $\pm 20\pi \approx \pm 62.8319 \text{ in}^3$