

Show all work clearly and in order, and circle your final answers.  
Justify your answers algebraically whenever possible.

**1.** (2 points) Compute  $\frac{d}{dx} \left[ \frac{6x^3+3}{2x^4-2} \right]$ .

**2.** (2 points) Compute  $\frac{d}{dx} \left[ \frac{3x^2}{\sqrt[5]{x}} \right]$ .

**3.** (2 points) Compute  $\frac{d}{dx} \left[ \frac{2x}{\cos(x)} \right]$ .