1. **(5 points)** Evaluate \( \frac{d}{dx} \sqrt{x^3 - 7x} \).

2. **(5 points)** For \( f(x) = 4x^3 - \frac{2}{x} \), find \( f'(x), f''(x) \) and \( f'''(x) \). Label which is which.

3. **(5 points)** Using an appropriate differential approximation, find a decimal approximately equal to \((1.999)^3\).

4. **(5 points)** Given that \( y^2 - 3xy = 9 \), find an expression for \( \frac{dy}{dx} \) in terms of \( x \) and \( y \).

5. **(2 point bonus)** Using the chain rule and product rule only, find an expression for \( \frac{d}{dx} \frac{f(x)}{g(x)} \) in terms of \( f(x), g(x), f'(x) \), and \( g'(x) \), using the back of the page if necessary.