$$\int_{x \to \infty} \frac{\sqrt{2x^{2}-4}-3x^{3}}{\sqrt{x^{4}+1}} = \int_{0}^{\infty} \frac{1}{\infty} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{2}})^{2}}-3x^{3}}{\sqrt{x^{4}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{2}})^{2}}-3x^{3}}{\sqrt{x^{4}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{2}})^{2}}-3x^{3}}{\sqrt{x^{2}(2-\frac{4}{x^{2}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{2}})^{2}}-3x^{3}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{4}})^{2}}-3x^{3}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{4}})^{2}}-3x^{4}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{4}})^{2}}-3x^{4}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{4}})^{2}}-3x^{4}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{4}})^{2}}-3x^{4}}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(2-\frac{4}{x^{4}})^{2}}-3x^{4}}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}} = \int_{0}^{\infty} \frac{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}}{\sqrt{x^{2}(1+\frac{1}{x^{4}})^{2}}}$$