Directions: Find the derivative of each of the following functions.

1. $f(x)=4 x^{6}+\pi^{2}+1$
2. $f(x)=3 \sqrt[5]{x^{3}}$
3. $f(x)=\frac{2}{x}+\frac{1}{2}$
4. $f(x)=\frac{1}{\sqrt{x}}$

Directions: Find the derivative of each of the following functions.

1. $f(x)=2 x^{7}+x-4$
2. $f(x)=5 \sqrt[4]{x^{3}}$
3. $f(x)=\frac{2}{x^{2}}+\frac{x^{2}}{2}$
4. $f(x)=\frac{1}{\sqrt[3]{x}}$

Directions: Find the derivative of each of the following functions.

1. $f(x)=6 x^{2}-3 x+1$
2. $f(x)=9 \sqrt[5]{x^{4}}$
3. $f(x)=\frac{5}{2 x^{2}}+\frac{x^{6}}{3}$
4. $f(x)=\frac{1}{\sqrt[4]{x}}$

Directions: Find the derivative of each of the following functions.

1. $f(x)=2 x^{7}-x+2$
2. $f(x)=3 \sqrt{x^{7}}$
3. $f(x)=\frac{x^{5}}{5}-\frac{4}{2 x^{2}}$
4. $f(x)=\frac{1}{\sqrt[5]{x}}$
