Æfing 4.2D 1. Diffrið föllin

a) $f(x) = \left(x^2 + x\right)^2$

b) $f(x) = \left(x^3 + 2\right)^{-1}$

c) $f(x) = \sqrt{3x - 2}$

d) $f(x) = \left(1 - x^2\right)^5$

e) $f(x) = \left|3x^3 + x\right|^3$

f) $f(x) = \sqrt{x^{-4} + x}$

2. Diffrið föllin

a) $f(x) = \left(x^2 + 4x - 8\right)^5$

b) $f(x) = x \cdot \left(x^3 + 2\right)^4$

c) $f(x) = (3x + 5)\left(x^2 + 4x - 8\right)^5$

d) $f(x) = (2x - 3)^5 (3x + 2)^4$

e) $f(x) = \left(x^2 + 4x - 8\right)^{-5}$

f) $f(x) = (2x - 3)^5 (3x + 2)^{-4}$

3. Diffrið föllin

a) $f(x) = \left(x^2 + 2\sqrt{x} - 7\right)^3$

b) $f(x) = x \cdot \sqrt{x^2 + 1}$

c) $f(x) = \dfrac{\sqrt{x^2 + 1}}{x}$

d) $f(x) = \left(x^2 + 2\sqrt{x} - x\right)^5$

e) $f(x) = x \cdot \left(x^2 + 1\right) \cdot \sqrt{x^2 + 1}$

f) $f(x) = \dfrac{x}{\sqrt{x^2 + 1}}$

4. Diffrið föllin

a) $f(x) = \sqrt{x^3 - 1}$

b) $f(x) = \sqrt{\dfrac{x}{x + 1}}$

c) $f(x) = \left|x^{-2} - 1\right|$

d) $f(x) = \sqrt{\sqrt{x} + 1}$

e) $f(x) = \left(\sqrt{x + 1} + 1\right)^2$

f) $f(x) = \left(\left(x^2 + 1\right)^2 + 1\right)^2$

Æfing 4.3A 1. Diffrið föllin

a) $f(x) = \sin(2x)$

b) $f(x) = \cos(-x)$

c) $f(x) = \tan^2(x)$

d) $f(x) = \cot^2(x)$

e) $f(x) = \cos(x^2)$

f) $f(x) = \cos^3(x^2)$

2. Diffrið föllin

a) $f(x) = \dfrac{1}{\sin(x)}$

b) $f(x) = \dfrac{1}{\tan(x)}$

c) $f(x) = \dfrac{1}{\sin(x) \cdot \cos(x)}$

d) $f(x) = \cos(x^2 - 3x + 2)$

e) $f(x) = \dfrac{1}{x \sin(x) \cdot \cos(x)}$

3. Diffrið föllin

a) $f(x) = \cos^2(x) - \sin^2(x)$

b) $f(x) = \cos(2x) + 2\sin^2(x)$

c) $f(x) = \sin^4(x) - \cos^4(x)$

d) $f(x) = \tan^2(x) - \cot^2(x)$

4. Diffrið föllin

a) $\sin(\cos(x))$

b) $\sin^2(\cos(x))$

c) $\sin(\cos^2(x))$

d) $\tan\left(\frac{1}{x}\right)$

e) $\cot\left(\tan\left(\frac{1}{x}\right)\right)$

f) $\tan^3(\sin(x))$