MATH 1 LECTURES 20-21 EXERCISES

WEDNESDAY 10-26-16 AND FRIDAY 10-28-16

(1) Compute the derivative of each function given below.

(a) $y = \dfrac{x^2 - x + 2}{\sqrt{x}}$

(b) $y = \dfrac{1}{\sqrt{x}} - \dfrac{1}{\sqrt[5]{x^3}}$

(c) $y = \dfrac{\tan x}{1 + \cos x}$

(d) $y = x^4 \sin(x)$

(e) $y = \dfrac{t^4 - 1}{t^4 + 1}$

(2) Compute the derivative of each function given below.

(a) $y = \sin(\pi x)$

(b) $y = \sin(\cos(x))$

(c) $y = \left(x + \dfrac{1}{x^2}\right)^{\sqrt{7}}$

(d) $y = (1 - x^{-1})^{-1}$

(e) $y = \left(\sin\left(\cos\left(\sqrt{\sin \pi x}\right)\right)\right)^2$