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Course: Math 101 A04 Spring 2022

Assignment: HW-7 [Sections 10.7 & 10.8]

21. Find the Taylor polynomials of orders 0, 1, 2, and 3 generated by f at a .

$$f(x) = \tan x, a = \frac{5\pi}{4}$$

$$P_0(x) = 1$$

(Type an exact answer, using π as needed.)

$$P_1(x) = 1 + 2 \left(x - \frac{5\pi}{4} \right)$$

(Type an exact answer, using π as needed.)

$$P_2(x) = 1 + 2 \left(x - \frac{5\pi}{4} \right) + 2 \left(x - \frac{5\pi}{4} \right)^2$$

(Type an exact answer, using π as needed.)

$$P_3(x) = 1 + 2 \left(x - \frac{5\pi}{4} \right) + 2 \left(x - \frac{5\pi}{4} \right)^2 + \frac{8}{3} \left(x - \frac{5\pi}{4} \right)^3$$

(Type an exact answer, using π as needed.)