

DÚ 4

Určete Taylorův polynom 3. stupně:

1)  $f(x) = x + \ln(x^2 - x + 1)$

$a = 1$

2)  $f(x) = \cos(\pi - x) + \sin(-2x) + \frac{\sqrt{2}}{2}$

$a = \frac{\pi}{4}$

3)  $f(x) = x + \sqrt[5]{5x - 34} - \sqrt[5]{5}$

$a = 7$

4)  $f(x) = \frac{x^2 - 4x + 2}{e^x}$

$a = 0$

$$T_3(a) = f(a) + \frac{f'(a)}{1!}(x-a) + \frac{f''(a)}{2!}(x-a)^2 + \frac{f'''(a)}{3!}(x-a)^3$$