№21.

$f(x)=3x^4-8x^2+12$, $x_0=-2$

$$f(x)=f(x_0)+\frac{f'(x_0)}{1!}(x-x_0)+\frac{f''(x_0)}{2!}(x-x_0)^2+\ldots+\frac{f^{(n)}(x_0)}{n!}(x-x_0)^n+\ldots$$

$f(x_0)=28$

$f'(x_0)=12x_0^3-16x_0=-64$

$f''(x_0)=36x_0^2-16=128$

$f'''(x_0)=72x_0=-144$

$f^{(IV)}(x_0)=72$

$f^{(V)}(x_0)=0.$

$$f(x)=28-64(x-2)+\frac{128}{2}(x-2)^2-\frac{144}{6}(x-2)^3+\frac{72}{24}(x-2)^4=$$

$$=28-64(x-2)+64(x-2)^2-24(x-2)^3+3(x-2)^4.$$