

3.92  
T<sub>2</sub>

$$T_{k+1} = \binom{n}{k} x^{-\frac{1}{4}(n-k)} (-x)^k$$

$$T_5 = \binom{n}{5} x^{-\frac{1}{4}(n-5)} (-x)^5$$

$$0 = -\frac{1}{4}n + \frac{5}{4} + 5$$

$$\boxed{n=25}$$

$$S = -\frac{1}{4}(25-k) + k$$

$$\boxed{k=9}$$

3.94

$$T_{10} = C_{25}^9 x^5$$