

3.88
R2

$$T_{k+1} = \binom{21}{k} x^{\frac{1}{2}(21-k)} x^{-\frac{1}{3}k}$$

$$x^3: 3 = 10\frac{1}{2} - \frac{1}{2}k - \frac{1}{3}k$$

$$\frac{5}{6}k = 7\frac{1}{2} \rightarrow \boxed{k=9}$$

$$T_{10} = \binom{21}{9} x^3 = C_{21}^9 x^3$$