

3.13
4

$$(x + \frac{1}{x})^6 (x+1)^8 = \sum_{l=0}^8 \binom{8}{l} x^{8-l} \cdot x^l$$

$$T_{k+1} = \binom{6}{k} x^{6-k} x^k \quad T_{k+1} V_{l+1} = \binom{6}{k} \binom{8}{l} x^{6-k+8-l}$$

$$6-k+8-l=3 \quad : x^3 \text{ מציבים את המעריך}$$

$$14 = k+l$$

$$0 \leq k \leq 6 \quad 0 \leq l \leq 8$$

$$l=1 \quad k=5 \quad (\text{מציבים את המעריך})$$

$$l=3 \quad k=4$$

$$l=5 \quad k=3$$

$$l=7 \quad k=2$$

$$\binom{8}{1} \binom{6}{5} + \binom{8}{3} \binom{6}{4} + \binom{8}{5} \binom{6}{3} + \binom{8}{7} \binom{6}{2} = 8 \cdot 6 + 15 \cdot 56 +$$

$$+ 20 \cdot 56 + 15 \cdot 8 = 2128$$