

4.5
78

7 -n olpna 13n) Bnta nna

$$T_{6+1} = \binom{12}{6} a^6 b^6$$

$$= \binom{12}{6} ((1+i)^5)^6 ((\sqrt{3}+i)^7)^6$$

$$= \binom{12}{6} (\sqrt{2} \operatorname{cis} 45)^{30} (2 \operatorname{cis} 30)^{42}$$

$$= \binom{12}{6} 2^{15} \operatorname{cis} 270 \cdot 2^{42} \operatorname{cis} 180$$

$$= \binom{12}{6} 2^{57} \operatorname{cis} 90 = \binom{12}{6} 2^{57} i = 924 \cdot 2^{57} i = 231 \cdot 2^{57} i$$