

1. Use the Binomial Theorem to expand $(x^3 - 2)^5$.

2. Find the coefficient of x^4 in the expansion of $(3x - 1)^6$.

Q: What are the next two letters in this sequence: A E F H I K L M ?

3. Use the Binomial Theorem to expand $(2x - 3)^6$.

4. Use the Binomial Theorem to expand $(x^2 + 2)^5$.

5. Use the Binomial Theorem to find the first three terms in the expansion of $\left(\frac{1}{x} + 1\right)^{17}$.

6. Use the Binomial Theorem to find the first three terms in the expansion of $\left(2 - \frac{x}{2}\right)^{20}$.

7. Find the coefficient of x^5 in the expansion of $(x - 2)^9$.

8. Find the coefficient of x^6 in the expansion of $(2x + 3)^8$.

Optional exercises from the Sullivan book if you'd like more practice:
12.5 (p.836) #5-11 odd, 17-21 odd, 29-35 odd