Lesson 10.3 Practice: Pascal's Triangle and the Binomial Theorem

School Launch · Algebra II · Unit 10: Counting, Probability and the Binomial Theorem · Worksheet A

Calculator for decimals

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Expand $(x - 2)^{3}$ using Pascal's triangle. EASY

2. Expand $(x + 3)^{3}$ using Pascal's triangle. EASY

3. Expand $(x + 1)^{3}$ using Pascal's triangle. EASY

4. Find the coefficient of x^{6} in the expansion of $(x - 3)^{7}$. MEDIUM

5. Find the coefficient of x^{3} in the expansion of $(3x - 2)^{7}$. MEDIUM

6. Find the coefficient of x^{5} in the expansion of $(x + 1)^{6}$. MEDIUM

7. Find the coefficient of x^{2} in the expansion of $(3x - 2)^{5}$. MEDIUM

8. Find the coefficient of x^{6} in the expansion of $(2x - 2)^{7}$. HARD

9. Find the coefficient of x^{2} in the expansion of $(3x - 1)^{4}$. HARD

10. Find the coefficient of x^{5} in the expansion of $(2x + 2)^{7}$. HARD