

LESSON 4.7 Assignment

Name _____ Date _____

The Curious Case of Pascal's Triangle
Pascal's Triangle and the Binomial Theorem

1. Consider $(v + w)^8$.
 - a. Use Pascal's Triangle to expand $(v + w)^8$.

 - b. Determine the coefficient of v^6w^2 in the expansion of $(v + w)^8$.

 - c. Determine the coefficient of v^6w^2 in the expansion of $(2v + w)^8$.

 - d. Determine the coefficient of v^4w^4 in the expansion of $(2v + 3w)^8$.

2. Expand $(4x + 2y)^5$.

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3. Expand $(3m - n)^6$.

4. Expand $(-5x - 3y)^4$.

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5. Determine the coefficient of c^5d^4 in the expansion of $(2c + 3d)^9$.

6. Determine the coefficient of j^7k^3 in the expansion of $(2j - k)^{10}$.

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