Name _____

13-6A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 934–937 for objectives.

SKILLS Objective E

Fill in the Blanks In 1 and 2, complete the expansion.

1. $(x + y)^3 =$ _____ $x^3 +$ _____ $x^2y +$ _____ $xy^2 +$ _____ y^3

2. a. $(3a - 2b)^4 = 1(3a)^4(-2b)^0 +$ _____ $(3a)$ ____ $(-2b)$____ +

   _____ (_____)____(_____)____ + _____ (_____)____(_____)____ +

   _____ (_____)____(_____)____

   b. Simplify. $(3a - 2b)^4 =$ _____

In 3 and 4, expand the binomial using the Binomial Theorem.

3. $(x + 2)^4 =$ _____

4. $(a + 5b)^3 =$ _____

5. What is the fourth term in the expansion of $(4x - y)^5$? _____

6. What is the x^5 term in the expansion of $(x + 3)^7$? _____

PROPERTIES Objective F

7. a. Write rows 0 through 4 of Pascal's Triangle.

   ____

   _____

   _____

   _____

   _____

   b. Expand $(a + b)^n$ for $n = 0, 1, 2, 3, 4$.

   ____

   _____

   _____

   _____

   _____

8. **Fill in the Blanks** In the expansion of $(a + b)^9$, $\binom{9}{2}$ is the coefficient of the term with a to the _____ power and b to the _____ power.

9. Write the coefficient of the $x^{n-r}y^r$ term in the expansion of $(x + y)^n$. _____