

**11-6 Practice****The Binomial Theorem****Expand each binomial.**

1.  $(n + v)^5$
2.  $(x - y)^4$
3.  $(x + y)^6$
4.  $(r + 3)^5$
5.  $(m - 5)^5$
6.  $(x + 4)^4$
7.  $(3x + y)^4$
8.  $(2m - y)^4$
9.  $(w - 3z)^3$
10.  $(2d + 3)^6$
11.  $(x + 2y)^5$
12.  $(2x - y)^5$
13.  $(a - 3b)^4$
14.  $(3 - 2z)^4$
15.  $(3m - 4p)^3$
16.  $(5x - 2y)^4$

**Find the indicated term of each expansion.**

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| 17. sixth term of $(x + 4y)^6$     | 18. fourth term of $(5x + 2y)^5$  |
| 19. eighth term of $(x - y)^{11}$  | 20. third term of $(x - 2)^8$     |
| 21. seventh term of $(a + b)^{10}$ | 22. sixth term of $(m - p)^{10}$  |
| 23. ninth term of $(r - t)^{14}$   | 24. tenth term of $(2x + y)^{12}$ |
| 25. fourth term of $(x - 3y)^6$    | 26. fifth term of $(2x - 1)^9$    |

**27. GEOMETRY** How many line segments can be drawn between ten points, no three of which are collinear, if you use exactly two of the ten points to draw each segment?

**28. PROBABILITY** If you toss a coin 4 times, how many different sequences of tosses will give exactly 3 heads and 1 tail or exactly 1 head and 3 tails?