

## 6.3 Practice

Date \_\_\_\_\_ Period \_\_\_\_\_

**Expand completely.**

1)  $(3n + 1)^4$

2)  $(4 - y)^3$

3)  $(u + 3v)^5$

4)  $(2y - 3x)^5$

**Evaluate each expression.**

5)  ${}_{11}C_6$

6)  ${}_{12}C_3$

7)  ${}_{13}C_6$

8)  ${}_{22}C_3$

9)  ${}_{16}C_3$

10)  ${}_{10}C_6$

11)  ${}_{10}C_4$

12)  ${}_{14}C_3$

13)  ${}_{13}C_3$

14)  ${}_{11}C_4$

**Find each term described.**

15) 3rd term in expansion of  $(2m - 1)^4$

16) 3rd term in expansion of  $(4v - 1)^4$

17) 3rd term in expansion of  $(1 - 4y)^4$

18) 2nd term in expansion of  $(y - 5)^3$

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### Answers to 6.3 Practice (ID: 1)

- |                                                                  |                             |             |             |
|------------------------------------------------------------------|-----------------------------|-------------|-------------|
| 1) $81n^4 + 108n^3 + 54n^2 + 12n + 1$                            | 2) $64 - 48y + 12y^2 - y^3$ |             |             |
| 3) $u^5 + 15u^4v + 90u^3v^2 + 270u^2v^3 + 405uv^4 + 243v^5$      |                             |             |             |
| 4) $32y^5 - 240y^4x + 720y^3x^2 - 1080y^2x^3 + 810yx^4 - 243x^5$ |                             |             |             |
| 5) 462                                                           | 6) 220                      | 7) 1,716    | 8) 1,540    |
| 9) 560                                                           | 10) 210                     | 11) 210     | 12) 364     |
| 13) 286                                                          | 14) 330                     | 15) $24m^2$ | 16) $96v^2$ |
| 17) $96y^2$                                                      | 18) $-15y^2$                |             |             |