

### 14.3 Practice

1. 462
2. 1287
3. 210
4. 210
5. -1
6.  $256x^4$
7.  $54y^2$
8.  $32u^3v$
9.  $16y^4$
10.  $75yx^2$
11.  $8n^3 - 12n^2 + 6n - 1$
12.  $1 + 9y + 27y^2 + 27y^3$
13.  $x^4 - 16x^3y + 96x^2y^2 - 256xy^3 + 256y^4$
14.  $x^4 + 16x^3 + 96x^2 + 256x + 256$
15.  $y^5 - 15y^4x + 90y^3x^2 - 270y^2x^3 + 405yx^4 - 243x^5$

#### Application

1.  $16807x^5 - 36015x^4y + 30870x^3y^2 - 13230x^2y^3 + 2835xy^4 - 243y^5$
2. 1
3. (c)  $a_n = 2^{n-1}$   
(d) 524,288  
(e)  $1.2676 \times 10^{30}$