Pg 420-421 #1-15 odd, 17-19, 23, 25, 26, & 29

1. when multiplying powers with the same base

3. 3^4

5. $(-4)^{12}$

7. h^7

9. $\left(-\dfrac{5}{7}\right)^{17}$

11. 5^{12}

13. 3.8^{12}

15. The bases should not be multiplied.

$5^2 \cdot 5^9 = 5^{2+9}$
$\qquad\quad = 5^{11}$

17. $216g^3$

18. $-243v^5$

19. $\dfrac{1}{25}k^2$

23. no; $3^2 + 3^3 = 9 + 27 = 36$ and $3^5 = 243$

25. 496

26. x^4

29. a. $16\pi \approx 50.27$ in.^{3}

    b. $192\pi \approx 603.19$ in.^{3}
Squaring each of the dimensions causes the volume to be 12 times larger.