Chapter 3 Practice Test

1. C **2.** B **3.** C **4.** D **5.** A **6.** B **7.** Examples: $(10 \times 5)^5$, 50^5

8. $\left(\dfrac{5}{8}\right)^6$ **9.** $\dfrac{4 \times 4 \times 4 \times 4 \times 4}{4 \times 4} = 64$ **10.** 181.0 cm³ **11.** 240.1 m

12. Calculator sequence should show the following.

   a) $(1 - 3)^4 \div 4 = 4$

   b) $(-2)^0 + 4 \times 17^0 = 5$

   c) $16 - 9 \times (2^3) + (-4)^2 = -40$

13. $3^0 \times 3^5$, $3^1 \times 3^4$, $3^2 \times 3^3$ **14.** 8.5 m³

15. a) Mabil should have added 5 and 3, and then applied the exponent of 2 to the sum of 8.

   b) 145

16. a)

Days	Number of Bacteria as a Product	Number of Bacteria
Start	$300(3)^0$	300
1	$300(3)^1$	900
2	$300(3)^2$	2 700
3	$300(3)^3$	8 100
4	$300(3)^4$	24 300
5	$300(3)^5$	72 900
6	$300(3)^6$	218 700
7	$300(3)^7$	656 100

b) $B = 300(3)^d$

c) 5 904 900

d) 100. To find the previous number of bacteria, divide by 3: $300 \div 3 = 100$.