NAME | **Solving Quadratic and Other Equations** | **3.1**

Set

Topic: Evaluate the expressions with rational exponents.

Fill in the missing values of the table based on the growth that is described.

12.
The growth in the table is triple at each whole year.

Years	0	½	1	3/2	2	5/2	3	7/2	4
bacteria	2		6						

13.
The growth in the table is triple at each whole year.

Years	0	1/3	2/3	1	4/3	5/3	2	7/3	8/3
bacteria	2			6					

14.
The values in the table grow by a factor of four at each whole year.

Years	0	½	1	3/2	2	5/2	3	7/2	4
bacteria	2		8						

Go

Topic: Simplifying exponents

Simplify the following expressions using exponent rules and relationships, write your answers in exponential form. (For example: $2^2 \cdot 2^5 = 2^7$)

15. $3^2 \cdot 3^5$

16. $\frac{5^3}{5^2}$

17. 2^{-5}

18. 17^0

19. $\frac{7^5}{7^2} \cdot \frac{7^3}{7^4}$

20. $\frac{3^{-2} \cdot 3^5}{3^7}$