16. The student did not convert 3.5% to a decimal;
$A = 500\left(1 + \frac{0.035}{4}\right)^{(4 \cdot 2)} = 500(1.00875)^8 \approx 536.09.$

9. 4 **10.** 15

11. 0.2 **12.** 0.94

13. $32,577.89

14. If $b > 1$, then it is exponential growth. If $0 < b < 1$, then it is exponential decay.

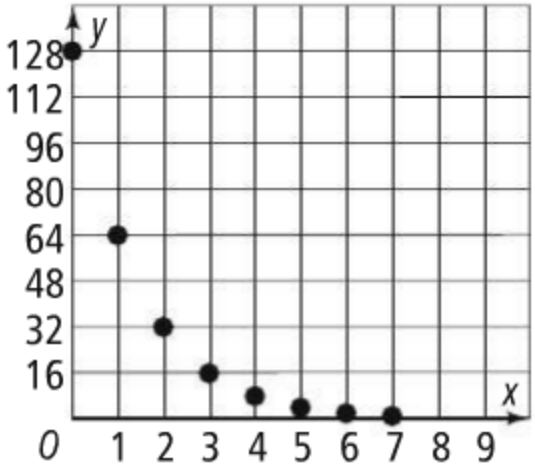
17. exponential growth **18.** exponential decay

19. neither **20.** exponential decay

21. $y = 10 \cdot 0.5^x$

22. a. $y = 128 \times \left(\frac{1}{2}\right)^x$

x	0	1	2	3	4	5	6	7
y	128	64	32	16	8	4	2	1



b. No, Sample answer: The table made it the easiest to determine that it is not possible for 24 teams to remain after a round.

c. the whole numbers from 0 to 7; The domain represents the end of round x.

d. 4 teams

23. No; the value of the car is about $5243.

24. about 9 years

26. exponential growth **27.** neither