CHAPTER 8 CONTINUED

NAME _____ DATE _____

Chapter Test A

For use after Chapter 8

Simplify the expression. The simplified expression should have no negative exponents.

18. $\left(\frac{4}{x}\right)^3$

19. $\frac{y^8}{y^9}$

Rewrite the number in decimal form.

20. 6.15×10^2

21. 1.14×10^{-2}

Rewrite the number in scientific notation.

22. 0.02

23. 1042

Evaluate the expression without using a calculator. Write the result in decimal form.

24. $(3 \times 10^{-2}) \cdot (12 \times 10^3)$

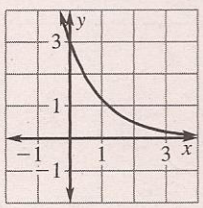
25. $\frac{4 \times 10^{-2}}{2 \times 10^{-3}}$

26. In 1998, the population of a city was 100,000. Then each year for the next five years, the population increased by 3%. Write an exponential growth model to represent this situation.

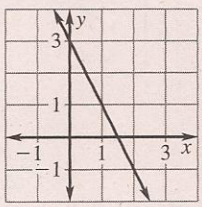
27. You buy a used truck for $10,000. It depreciates at the rate of 18% per year. Find the value of the truck after 5 years.

Match the equation with its graph.

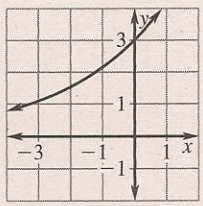
A.



B.



C.



28. $y = 3 - 2x$

29. $y = 3(1.4)^x$

30. $y = 3(0.4)^x$

Classify the model as exponential growth or exponential decay.

31. $y = 17(1.9)^x$

32. $y = 22(0.8)^x$

18. _____
19. _____
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23. _____
24. _____
25. _____
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