Chapter 8 Practice Test

Short Answer

Simplify the expression.

1. $(-7.8)^0$

2. $-(2)^{-3}$

3. $(6)^{-2}$

4. $6a^{-3}m^4$

5. $\dfrac{4}{x^{-3}y^7}$

6. $7^{-2} \cdot 8^0$

7. $9^{-3} \cdot 9^8 \cdot 9^3$

8. $(8.51)^{-8} \cdot (8.51)^9$

9. $(x^2)^6$

10. $(x^{-5})^3$

11. $\dfrac{5^{10}}{5^8}$

12. $\dfrac{k^{14}}{k^{10}}$

13. $\dfrac{d^5}{d^8}$

14. $\dfrac{3^2}{3^5}$

15. $\left(\dfrac{9}{7}\right)^3$

16. $(-h^2)^5$

17. $6 \cdot 2^{-4}$

18. $5x^{-6} \cdot 7x^5$

19. $5g^5 \cdot 4h^6 \cdot g^6$

20. $-4x^3 \cdot 2y^{-2} \cdot 5y^5 \cdot x^{-8}$

21. $(x^7)^0 (x^6)^2$

22. $(4h^4)^4$

23. $(4xy^5)^2 (xy)^6$
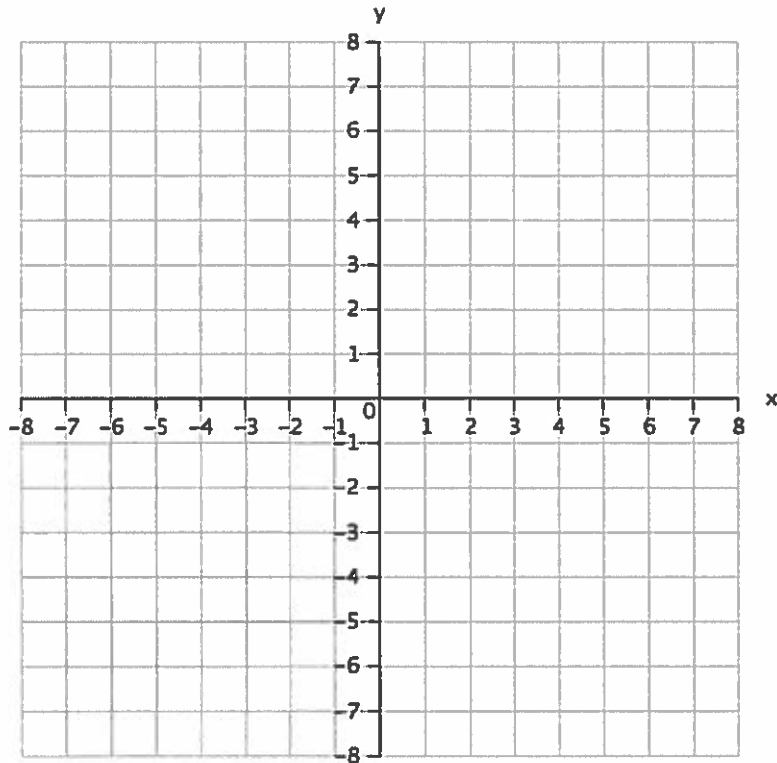
24. $5x^8 \cdot x^{-2}$

25. $(-6a^5 b^3)^3 (a^5 b^6)^4$

26. $\dfrac{j^{-3} k^{-6}}{j^{-8} k^4}$

27. $\left(\dfrac{3m}{4}\right)^2$

Graph of the function. Use $x = \{-2,-1,0,1,2\}$ for your table.

28. $y = 2(0.50)^x$

Evaluate the function rule for the given value.

29. $y = 9 \cdot 2^x$ for $x = -5$

30. Suppose a population of 250 crickets doubles in size every 6 months. How many crickets will there be after 2 years?

31. Suppose an investment of $6,600 doubles in value every 8 years. How much is the investment worth after 40 years?

Other

32. $\left(x^3 y^6\right)\left(x^4 y^8\right)$

33. $\left(3x^4 y^{-5} z^2\right)^2$

34. $\dfrac{x^5 y^4 z^3}{x y^7 z^3}$

35. $\left(xy\right)^0$