

## M7A Chapter 4 Pretest

Write each expression using exponents.

1.  $(-4)(-4)(-4)$

1. \_\_\_\_\_

2.  $3 \cdot b \cdot b \cdot b \cdot b$

2. \_\_\_\_\_

Write each expression using a positive exponent.

3.  $x^{-6}$

3. \_\_\_\_\_

4.  $4^{-5}$

4. \_\_\_\_\_

Find each product or quotient. Express using positive exponents.

5.  $k \cdot k^6$

5. \_\_\_\_\_

6.  $(-2^5) \div (2^3)$

6. \_\_\_\_\_

Express each number in standard form.

7.  $3.4 \times 10^{-5}$

7. \_\_\_\_\_

8.  $7.49 \times 10^3$

8. \_\_\_\_\_

Evaluate each expression. Express the result in scientific notation.

9.  $(3.2 \times 10^{-4}) + (2.2 \times 10^{-5})$

9. \_\_\_\_\_

10.  $(6.2 \times 10^5) + (1.2 \times 10^6)$

10. \_\_\_\_\_

Find each square root or cube root.

11.  $\sqrt{169}$

11. \_\_\_\_\_

12.  $-\sqrt{400}$

12. \_\_\_\_\_

13.  $\sqrt[3]{1,331}$

13. \_\_\_\_\_

14.  $-\sqrt[3]{343}$

14. \_\_\_\_\_

15. The sides of a square measure  $6x^3$  units. What is the area of the square?

15. \_\_\_\_\_

Replace each  $\bullet$  with  $<$ ,  $>$ , or  $=$  to make a true statement.

16.  $-\sqrt{30} \bullet -5\frac{1}{4}$

16. \_\_\_\_\_

17.  $\sqrt{36} \bullet 6.\overline{33}$

17. \_\_\_\_\_

18. Is  $\sqrt{25} + 12$  rational or irrational? Explain.

18. \_\_\_\_\_