NAME_____

Module 5 **Decimal Operations, Exponents, and Powers**
Lesson 6 **Powers and Exponents**

Independent Practice 5.6

Write in exponential form.

1. $4 \times 4 \times 4 \times 4 \times 4$

2. $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$

Evaluate.

3. 2^8

4. 3^3

5. -4^2

6. $(-3)^4$

7. 2 to the 4^{th} power

8. 9 to the 2^{nd} power

9. $-5^2 \times (-3)^2$

10. $(-2)^3 \times -2^2$

11. $-(6 - 1)^2$

12. $2(-4 - 2)^2$

13. $8^2 - 2^4$

14. $2^5 - 4^3$

15. $3^3 \times 7^0$

16. $-4^0 \times 5^3$

17. 2^{-3}

18. -7^{-2}

19. A multiple choice test has five questions and the choices for each question are A, B, or C. How many different ways are there to answer all five questions?

20. On the first day, there were two snails in the fishbowl. If the number of snails doubled every month, how many snails were there after seven months?

Journal

1. Explain how to write 64 as the factor, two, raised to a power.

2. Express the following product using exponents. Explain your procedure.
$5^3 \times 5^6$

3. Evaluate the following expression. Explain your procedure.
$9^2 - 2^7$

4. Evaluate each of the following expressions. Explain the differences between them.
4^2, -4^2, $(-4)^2$, $-(-4)^2$

Cumulative Review

Evaluate each expression.

1. 0.7 + 0.7

2. 2.8 + 1.9

3. 3.95 + 0.46

4. 5.99 + 0.3

5. 0.6 – 0.06

6. 1.4 – 0.14

7. 8.78 – 2.912

8. 10.3 – 4.52

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Module 5 Decimal Operations, Exponents, and Powers
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Multiply.

9. 1.6 × 5.4

10. 0.004 × 0.009

11. 0.3 × 0.85

12. 22.5 × 0.66

Estimate and evaluate each expression and check for reasonableness of the answer.

13. 29 ÷ 40

14. 18.8 ÷ 3

15. 0.52 ÷ 1.3

16. 0.96 ÷ 0.016

Additional Work Area