Math 8 Name_____

Reviewing Laws of Exponents

Score_____Per____

Write each expression using exponents.

1. $(-5)(-5)(-5)(-5)(-5) =$ _____
2. $4 \cdot 4 \cdot 4 \cdot 4 \cdot 7 \cdot 7 \cdot 7 =$ _____
3. $t \cdot m \cdot m \cdot m \cdot t \cdot t \cdot t \cdot t \cdot t =$ _____
4. $\frac{1}{5} \cdot \frac{1}{5} \cdot \frac{1}{5} \cdot \frac{1}{5} \cdot \frac{1}{5} \cdot \frac{1}{5} \cdot \frac{1}{5} \cdot \frac{1}{5} =$ _____
5. $6 \cdot 6 \cdot z \cdot z \cdot z \cdot 6 \cdot z \cdot 6 \cdot z =$ _____
6. Interstate 89 stretches almost $3^3 \cdot 5^4 \cdot 2$ miles across several states. About how many miles is route 89

Evaluate each expression.

7. $2^5 =$ _____
8. $\left(\frac{4}{5}\right)^4 =$ _____
9. $(-3)^4 =$ _____
10. $6^3 =$ _____
11. $\left(-\frac{2}{3}\right)^3 =$ _____
12. $\frac{1^2}{2^3} =$ _____
13. $(-3)^5 =$ _____
14. $\left(-\frac{1}{2}\right)^5 =$ _____

Simplify all exponents and evaluate all numbers.

15. $(8x^4)(6x^3)$

16. $(-3x^5y^2)(5x^4y^3)$

17. $2a^2bc^3 \cdot b^2 \cdot 4c \cdot 2a^2$

18. $\frac{45m^6q^4}{9m^3q^2}$

19. $\frac{-21h^{14}j^8}{7h^6j^3}$

20. $\frac{-144x^6y^4z^2}{-12x^3y^2z}$