6.EE.1: Worksheet

Solutions

1. Evaluate the expression $9 + 10 \times 2^2$.

   49

2. Evaluate the expression $2^3 \times (5^3 - 100)$.

   200

3. Write the expression $61 \times 61 \times 61 \times 61$ using exponents.

   61^4

4. Write the expression 9^5 without using exponents and then evaluate it.

   $9 \times 9 \times 9 \times 9 \times 9 = 59049$

5. Of the expressions 3^2 and 2^3, which is larger?

   3^2

6. Your grandpa gives you a choice between eating 50 cookies now or eating one cookie today, two cookies tomorrow, four cookies the day after, and so on, for a week. Write an expression for the second option. Which option is better if you want to eat the most cookies possible?

   The second option is better because you'll eat 2^6, or 64 cookies within the week instead of only 50.

7. Evaluate the expression $\frac{5^2 \times (4^3 - 54)}{50}$.

   5

8. A colony of flesh-eating bacteria starts with 50 cells and triples every hour. How many bacterial cells will there be after 12 hours? 26572050 bacterial cells

9. Evaluate the expression $\frac{8^2+5}{3}$.

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10. Evaluate the expression $\frac{6^5-(5^5+207)}{7^3-11^2} + \frac{7^3-(12^2+50\times3)}{7}$.

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