

Directions: Show your work for credit. Use your notes and textbook for support

1. Use properties of exponents to write an equivalent expression for $11^2 \cdot 11^5$.

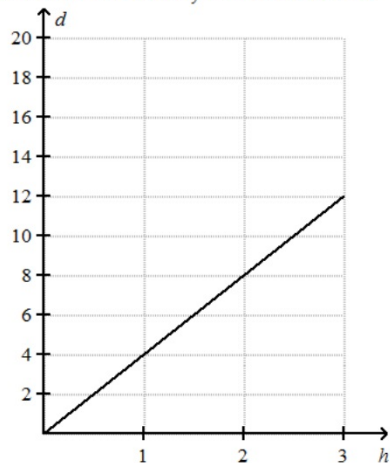
- a. 11^{10}
- b. $11^{\frac{2}{5}}$
- c. 11^7
- d. 121^7

2. Simplify the expression $(3^5)^0 \cdot (7+3)^6 \cdot 10^{-8}$

Show your work

- a. $\frac{1}{100}$
- b. $1\frac{1}{100}$
- c. 100
- d. 101

3. The graph shows the relationship between the number of hours h Bree has been hiking and the total distance d she has traveled, in kilometers.



Which statement is true?

- a. The slope of the line is 8.
- b. The slope of the line is 4.
- c. To find the slope of the line, you could divide the total number of hours hiked by the total distance.
- d. To find the slope of the line, you could multiply the total number of hours hiked by the total distance.



4. A computer can do 1000 operations in 1.5×10^{-6} minutes. How many operations can be done by this computer in one hour? Express your answer in scientific notation.

_____ operations

5. Gregg deposits the money he makes from mowing lawns into his savings account, adding it to the money his father gave him to open the account. Confirm the relationship is linear and give the constant rate of change and the initial value.

| | | | | |
|-------------------------|-----|-----|-----|-----|
| Lawns mowed | 5 | 10 | 15 | 20 |
| Money saved (\$) | 110 | 170 | 230 | 290 |

\$ _____ per lawn

Initial Value \$ _____

If x represents the number of lawns mowed and y represents the amount of money saved, write a linear equation that can represent the data table above.
