LEVEL 1 **Name:**

No calculators! Write your final answer on the blank or the answer will not count.

Simplify each **completely**. No negative exponents and no decimals allowed in your final answer.

1. $2^2 \cdot 2^3$

_____

2. $(-3)^2 (-3)^3$

_____

3. $\left[(-4)^2\right]^2$

_____

4. $\dfrac{(x^3)^4 \cdot x^5}{x^6}$

_____

5. $(-4x)^0$

_____

6. $0^4 \cdot \left(\dfrac{1}{2}\right)^3$

_____

7. Write -9.4×10^4 in standard form.

_____

8. Simplify and write the answer in scientific notation. $(3.2\times10^{13})(5.4\times10^{-9})$.

_____

9. Find the slope of a line containing the points (-7, 3) and (3, 8).

_____

LEVEL 2 **Name:**

No calculators! Write your final answer on the blank or the answer will not count.

Simplify each completely. No negative exponents or decimals!

1. -2^4

_____

2. $\left(-\frac{x^5}{2}\right)^4$

_____

3. $\frac{5^{-3}}{5^{-2}}$

_____

4. $\frac{1}{-7t^{-3}}$

_____

5. $\left(-3x^2y^0z\right)^4 \bullet (6x^{-3}yz^{-5})^{-2}$

_____

6. $\left(\frac{-x^2y^{-4}}{2x^{-1}}\right)^3 \bullet \frac{4x^8y^{13}}{x^{-4}y^{-8}}$

_____

7. Write 0.000351 in scientific notation.

_____

8. Simplify and write in scientific notation. $\frac{2\times10^{-4}}{4\times10^{7}}$.

_____

9. Solve for x. $-5 \le -3x - 1 < 8$

_____

10. Solve for x. $-2|3x-5| > -14$

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