- 1. Write as a fraction in simplest form:  $0.\overline{57}$
- 2. Simplify using Exponent Laws; 'drop bars' for extra credit, and write all exponents positive.

a. 
$$8a^2b^3(-4a^3b^3)$$
 b.  $\frac{-24a^2b}{18ab^5}$ 

3. Evaluate and express the result in Scientific Notation.

a. 
$$(9.75 \times 10^3)(8.4 \times 10^{-6})$$
 b.  $(7.2 \cdot 10^7)(1.82 \cdot 10^2)$  c.  $\frac{6.256 \cdot 10^8}{6.8 \cdot 10^4}$  d.  $\frac{2.888 \cdot 10^5}{7.22 \cdot 10^2}$ 

4. Evaluate and express the result in Scientific Notation

a. 
$$(7.3 \cdot 10^5) + 3,400,000$$
 b.  $(1.78 \cdot 10^4) + (5.35 \cdot 10^3)$  c.  $(1.03 \cdot 10^9) - (4.7 \cdot 10^7)$ 

d. 
$$(8.4 \cdot 10^7) - (6.3 \cdot 10^6)$$

5. Mr. Ford is shipping a care package to a former student. Mr. Ford chose a square box with the dimensions shown. What is the volume of the box expressed as a monomial?



- 6. There are about  $2.5 \cdot 10^{10}$  red blood cells int the average adult. How many adults would it take to have a total of  $1 \text{ googol} (1 \cdot 10^{100})$  red blood cells?
- 7. Solve the equations.

a. 
$$q^2 = \frac{81}{576}$$
 b.  $a^3 = -2.197$ 

8. Write the missing words in order on your answer page!

"A ratio of \_\_\_\_\_ integers?

Oh, no! You \_\_\_\_\_ write me!

My \_\_\_\_\_ does not \_\_\_\_\_,

Nor does it \_\_\_\_\_\_,

I am number \_\_\_\_\_,

Yes, I'm CRAZY!

Don't mess with ME!!!