

Name: \_\_\_\_\_

**Homework (WEEK 3) Honors:**

**TRY YOUR BEST AND SHOW ALL OF YOUR WORK! Use CUBES (circle, underline, box, evaluate, and solve) to earn full credit.**

**MONDAY:**

Solve the following problems **without a calculator**. You MUST show your work. **NO WORK = NO CREDIT.**

<p>1. Oka had \$12. Then she saved \$15 from her allowance. She bought 5 blow pops for \$.25 each, 24-tootsie rolls for \$.03 each, and 2 airheads for \$.60 each. How much money did Oka spend and how much does Oka have left?</p> <p><b>Answer</b> _____</p>	<p>2. Write the following in exponential form and evaluate:</p> <p>A. <math>6 \times 6 \times 6 \times 6 \times 6 = \underline{\quad} = \underline{\quad}</math></p> <p>B. <math>5 \times 5 \times 5 \times 5 = \underline{\quad} = \underline{\quad}</math></p> <p>C. <math>12 \times 12 = \underline{\quad} = \underline{\quad}</math></p>
<p>3. A group of 1,176 campers wants to take boats out on the lake. If each boat holds 12 campers, how many boats will the campers need?</p> <p><b>Answer</b> _____</p> <p>4. SAT Question: If <math>3^{x-2} = 3</math>, then <math>x = 3</math></p> <p><b>Answer</b> _____</p>	<p>5. <math>173 \times 43 =</math></p> <p><b>Answer</b> _____</p> <p>6. SAT Question: If <math>2^4 = 4^x</math>, then</p> <p><b>Answer</b> _____</p>

**TUESDAY**

Solve the following problems **without a calculator**. You MUST show your work. **NO WORK = NO CREDIT.**

<p>1. Each question on a game show is worth 15 points. Last night, a contestant answered 268 questions correctly. How many points did the contestant earn?</p> <p><b>Answer</b> _____</p> <p>1a. Evaluate: <math>5^2 \cdot 5 \div 5 + 5^2</math></p> <p><b>Answer</b> _____</p>	<p>2. Evaluate: <math>5^2 \div (25 \div 5)^2</math></p> <p><b>Answer</b> _____</p> <p>3. <math>\frac{9^7}{9^5} =</math> _____</p> <p>Describe the rule for dividing exponents with the same base</p> <p><b>Answer</b> _____</p>
<p>4. Evaluate:</p> $\frac{4^4}{2^5} = \underline{\quad}$ <p>Can you use the rule for dividing exponents for this problem? Explain why or why not?</p> <p><b>Answer</b> _____</p>	<p>5. Look at the following number: <b>87341.32</b></p> <p>What number is in the hundredths place? _____</p> <p>What number is in the hundreds place? _____</p> <p>What number is in the tenths place? _____</p> <p>What number is in the ten thousands place? _____</p>

### WEDNESDAY

Solve the following problems **without a calculator**. You **MUST** show your work. **NO WORK = NO CREDIT**.

<p>1. <math>79,325 \div 24 =</math></p> <p><b>Answer</b> _____</p>	<p>2. Write in expanded form and solve.</p> <p>a) <math>6^4 =</math> _____ <math>=</math> _____</p> <p>b) <math>3^5 =</math> _____ <math>=</math> _____</p> <p>c) <math>132^0 =</math> _____ <math>=</math> _____</p> <p>d) <math>25545^1 =</math> _____ <math>=</math> _____</p>
<p>3. 268 miners need to ride the elevator to the bottom of the mine. The elevator can hold 17 miners at a time. How many miners will be in the elevator on its last trip?</p> <p><b>Answer</b> _____</p> <p>1. Solve.</p> <p><math>(6 \cdot 4 \div 3)^2 - (2^4 - 5 \cdot 2) \div (2^2 \div 2^1) + 2234^0</math></p> <p><b>Answer</b> _____</p>	<p>5. Solve.</p> <p><math>(6 \cdot 3 - 8)^2 \div 4(5^2 \div 5)^0 + 5(5^2)</math></p> <p><b>Answer</b> _____</p>

### THURSDAY

Solve the following problems **without a calculator**. You **MUST** show your work. **NO WORK = NO CREDIT**.

<p>1. Evaluate:</p> <p><math>(199^0 \cdot 9^2)</math> <math>3(3^3 \div 3)</math></p> <p><b>Answer</b> _____</p>	<p>2. Try your luck at these analogy puzzles. An analogy compares two things to two others. Here is example:</p> <p><math>9 : 10 :: 81 : ?</math></p> <p>This is read as “9 is to 10 as 81 is to ...” and the answer is 100.</p> <p><math>9^2 = 81</math> <math>10^2 = 100</math></p> <p>Now find the missing numbers or words in the following analogies:</p> <p>a. <math>11 : 121 :: 20 :</math></p> <p>b. <math>3 : 27 :: 4 :</math></p>
<p>3. Solve.</p> <p><math>(9^0 + 3)^0 + 5(72 \div 9 + 2) + 12</math></p> <p><b>Answer</b> _____</p>	<p>4. Solve.</p> <p><math>\frac{12^2 - 5(3 \cdot 3 + 3)}{3} =</math></p> <p><b>Answer</b> _____</p>

