

Pre-Algebra Homework (6)

Name: KEY Week of: \_\_\_\_\_

REVIEW

SHOW ALL WORK!!!!!!

<p>1. Estimate and then find the product.</p> <p>Estimate: <u><math>4 \times 5 = 20</math></u></p> $\begin{array}{r} 3.7 \times 4.8 \\ 52 \\ 3.7 \\ \times 4.8 \\ \hline 296 \\ 1480 \\ \hline 17.76 \end{array}$ <p>Answer: <u>17.76</u></p>	<p>2. Estimate and then find the quotient.</p> <p>Estimate: <u><math>12 \div 2 = 6</math></u></p> $\begin{array}{r} 12.88 \div 2.3 \\ 56 \\ 2.3 \overline{)12.88} \\ \underline{-115} \\ 138 \\ \underline{-138} \\ 0 \end{array}$ <p>Answer: <u>5.6</u></p>
<p>3. Simplify each power.</p> <p>a) <math>4^3 \cdot 4^6 = </math> <u><del>4</del> <math>4^9</math></u></p> <p>b) <math>(4^3)^6 = </math> <u><math>4^{18}</math></u></p> <p>c) <math>\frac{4^6}{4^3} = </math> <u><math>4^3</math></u></p>	<p>4. Simplify using a single positive exponent.</p> $5z^{-2} \cdot 3z^6 \cdot z^8$ $\underline{5} \cdot \underline{z^{-2}} \cdot \underline{3} \cdot \underline{z^6} \cdot \underline{z^8}$ <p>Answer: <u><math>15z^{12}</math></u></p>
<p>5. Simplify using a single positive exponent.</p> $\frac{14x^7}{2x^{-2}}$ <p>Answer: <u><math>7x^9</math></u></p>	<p>6. Simplify using a single positive exponent.</p> $(y^5)^{-4}$ $y^{-20}$ <p>Answer: <u><math>\frac{1}{y^{20}}</math></u></p>

Standard: Solve real-world and other mathematical problems involving numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Interpret scientific notation that has been generated by technology, such as a scientific calculator, graphing calculator, or excel spreadsheet.

<p>7. Change each number to standard form.</p> <p><math>3.7 \times 10^5</math> <u>370,000</u></p> <p><math>8 \times 10^{-6}</math> <u>000008</u></p>	<p>8. Change each number to scientific notation.</p> <p>4,560,000,000 <u><math>4.56 \times 10^9</math></u></p> <p>0.00000089 <u><math>8.9 \times 10^{-7}</math></u></p>
<p>9. Adjust each number to place it in correct scientific notation.</p> <p><math>0.45 \times 10^8</math> <u><math>4.5 \times 10^7</math></u></p> <p><math>23 \times 10^{-5}</math> <u><math>2.3 \times 10^{-4}</math></u></p>	<p>10. Which number is in scientific notation? Explain.</p> <p><math>289 \times 10^4</math>      <math>14^8</math></p> <p><u><math>4.6 \times 10^{-5}</math></u>      <math>5.89 \times 9^7</math></p> <p><u>The first number is between 1 + 10 and it is being multiplied by a power of 10.</u></p>
<p>11. Taylor states that 2,800,000 in scientific notation is <math>2.8 \times 10^{-6}</math>. Give the correct answer and explain her mistake.</p> <p>Answer: <u><math>2.8 \times 10^6</math></u></p> <p><u>It is a large number so the exponent should be positive.</u></p>	<p>12. Sam said to change <math>2.5 \times 10^5</math> to standard form you write 25 and then add 5 zeros. Is he correct? Explain.</p> <p><u>NO, you move the decimal 5 times not add 5 zeros. It should be 250,000.</u></p>

Mental Math: Solve each problem mentally and explain your reasoning.

<p>13. <math>\\$10.00 - \\$8.97 =</math> <u>1.03</u></p> <p><u>Count up from 8.97 by adding 3¢ to make \$9 then add a dollar.</u></p>	<p>14. <math>\frac{4}{5}</math> of 150 = <u>120</u></p> <p><u><math>\frac{1}{5}</math> of 150 = 30 (divide by 5) so <math>\frac{4}{5}</math> of 150 = 120 (mult. by 4)</u></p>
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Extra Practice: Work on math facts with Reflex and 1-9 Math XL Practice assigned on Pearson