**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Teacher / Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Intermediate II Unit 14 – Study Guide**

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| Standard: 8.NS.1 - I can show that every number has a decimal. I can change every repeating decimal into a rational number (fraction). I can understand that the square root of 2 is irrational.  |
| **Directions:** Name all sets of numbers to which each of these real numbers belong.  Use W= Whole, Z= Integer, Q=Rational, and $\overbar{Q}$= Irrational. **Justify your answer.** |
| $$ \frac{1}{3}$$ $\sqrt{-36}$ |  -22 $-3^{2}$ |
|  $\sqrt{3}$ .6$3$3333… | 0.5555….. -3/4 |
|  73.2 | $$\sqrt{169}$$ |
| **Directions**: Answer the following. Show All Work. Justify your reasoning. |
| $$ $$Which point is closest to $\sqrt{42}$ on the number line: A, B, C, or D?What point is closest to $√5$ on the number line: A, B, C or D? | Circle the number(s) between 3.2 and $\sqrt{9}$.  $3.204$ $\sqrt{8}$ $ \sqrt{15}$ 3$.19$$ 3.0165$ $2\sqrt{4}$  |
| **Directions**: Change each fraction into a decimal. Show All Work |
| $$ $$$$ \frac{5}{11}$$ |  $3.5$  |
| $$ $$$ 0.14$  | $$-\frac{3}{7}$$ |
| Standard: 8.NS.2 - I can use rational approximations to locate and plot irrational numbers on a number line and estimate the value of the expression. I can use estimate values to compare two or more irrational numbers.  |
| **Directions**: Order the following numbers from **greatest to least**. Show all your work. |
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| --- | --- | --- | --- |
| $$-10\frac{1}{9}$$ | $$\sqrt[3]{-1000}$$ | $$-3^{2}$$ | $$-\frac{19}{2}$$ |

 Order Least to Greatest: 5.2 $\sqrt{25}$ $ \sqrt[3]{216}$ (-2)^2 11/2 |