Name_____

## Sets of Numbers

| Set | Definition | Examples |
|---|---|---|
| **Natural Numbers** | | |
| **Whole Numbers** | | |
| **Integers** | | |
| **Rational Numbers** | | |
| **Irrational Numbers** | | |
| **Real** | | |

|  | Natural | Whole | Integer | Rational | Irrational | Real |
|---|---|---|---|---|---|---|
| −7 |  |  |  |  |  |  |
| $\sqrt{5}$ |  |  |  |  |  |  |
| $\dfrac{2}{3}$ |  |  |  |  |  |  |
| 1.141421... |  |  |  |  |  |  |
| $\sqrt{81}$ |  |  |  |  |  |  |
| −4.375 |  |  |  |  |  |  |
| $\sqrt{13}$ |  |  |  |  |  |  |
| $3.\overline{6}$ |  |  |  |  |  |  |
| $\sqrt{1}$ |  |  |  |  |  |  |
| $\dfrac{15}{3}$ |  |  |  |  |  |  |
| $\dfrac{15}{2}$ |  |  |  |  |  |  |
| $2.3\overline{2}$ |  |  |  |  |  |  |
| $\sqrt{5}$ |  |  |  |  |  |  |
| −101 |  |  |  |  |  |  |
| $1.\overline{375}$ |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |
| 0 |  |  |  |  |  |  |
| 2.3756... |  |  |  |  |  |  |
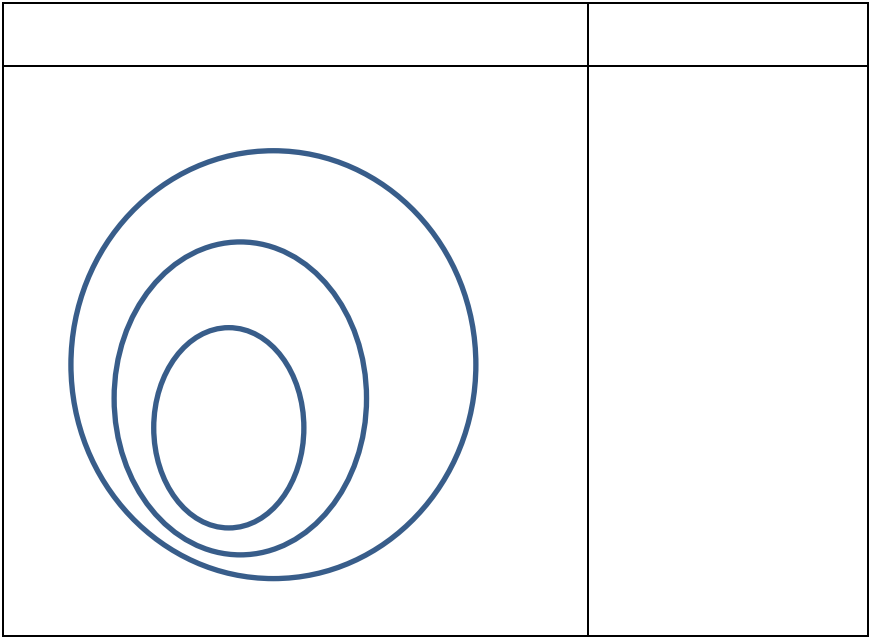
Write each rational number as a fraction (either proper or improper – not mixed) where the numerator and denominator are each integers.

| 1. 0.4 | 2. −3.6 | 3. 0.37 | 4. $-6\dfrac{1}{3}$ |
|---|---|---|---|
| 5. $3\dfrac{3}{4}$ | 6. 0 | 7. 67.25 | 8. 17 |

Write a decimal for fraction or mixed number. Indicate repeating digits with a bar.

| 1. $\dfrac{5}{3}$ | 2. $\dfrac{4}{9}$ | 3. $3\dfrac{1}{4}$ | 4. $1\dfrac{5}{12}$ |
|---|---|---|---|
| 5. $\dfrac{3}{8}$ | 6. $\dfrac{7}{25}$ | 7. $\dfrac{2}{7}$ | 8. $\dfrac{5}{11}$ |

Represent each of the following by a positive of negative rational number.

1. A weight gain of 2.1 kilograms_____

2. A weight loss of 5.5 pounds_____

3. An elevation of 250 meters below sea level_____

4. A deposit of $75.25 in a savings account_____

5. A drop in temperature of 5 degrees_____

6. A profit of $1050_____