**TRS 82 Day 15 Homework**

**Thinking Ahead about Positive and Negative Numbers** – You should understand these questions fully before the next class. Check your answers with the key on your instructor’s website. You can get help with this work from the following sources:

**Write the name of the number set from the list below by each description.**

**Real Numbers Rational Numbers Integers**

1. \_\_\_\_\_\_*integers*\_\_\_\_\_\_\_\_\_\_\_\_ The whole numbers and their opposites {…-3, -2, -1, 0, 1, 2, 3,…}
2. *\_\_\_\_\_real numbers\_\_\_\_\_\_\_\_\_\_\_*All numbers that can be represented on the number line.
3. \_\_*rational numbers\_\_\_\_\_\_\_\_\_\_\_*All numbers that can be written as $\frac{a}{b}$, where *a*  and *b*  are integers and *b* does not equal 0.
4. Order the following numbers from smallest to largest:

$\frac{2}{3}$, -2.3, -3, $-\frac{2}{5}$, 1.6, $\frac{3}{4}$, -2.1, $\frac{3}{2}$, -0.03, $1\frac{1}{3}$, -1.3, $-\frac{3}{8}$, 0, -0.1



1. In your list above, circle any numbers that are integers.
2. Suppose you have $56 in your checking account and write a check for $70. Will your balance be positive or negative? *positive*
3. Suppose you are overdrawn at the bank by $125 and you deposit $175. Will your balance be positive or negative? *positive*
4. Suppose you are overdrawn at the bank by $34 and you write a check for $23. Will your balance be positive or negative? *negative*

**For the problems below, predict whether the sum will be positive or negative. Circle the correct answer.**

|  |  |  |
| --- | --- | --- |
| 1. 448 + (-315)
 | 1. -1.62 + (-1.20)
 | 1. -967 + 340
 |
| Positive | Negative | Positive | Negative | Positive | Negative |
|  |  |  |
| 1. -12,503 + 2,578
 | 1. 36 + (-784)
 | 1. -0.93 + 0.0034
 |
| Positive | Negative | Positive | Negative | Positive | Negative |
|  |  |  |

**Find each sum without a calculator!**

|  |  |  |
| --- | --- | --- |
| 1. $19+(-5)$=14
 | 1. -32 + 22=-10
 | 1. -14 + (-20)=-34
 |
| 1. -3 + 6 + (-8)=5
 | 1. 10 + (-13) + 6=3
 | 1. -3 + (-6) + (-2)=-11
 |
| 1. 4 + (-4)=0
 | 1. -15 + 15=0
 | 1. -345 + 345=0
 |

**Give the opposite of each number.**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. -5, 5
 | 1. 13, -13
 | 1. x, -x
 | 1. –a, a
 |