CW 12/10

**Island 1**

**Station A**: Answer the 5 questions:

1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Station B**: Answer question #2:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Station C**: Answer question #1 and 2:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question #2: 1 = \_\_\_\_\_ 2 = \_\_\_\_\_\_ 3 = \_\_\_\_\_\_ 4 = \_\_\_\_\_\_ 5 = \_\_\_\_\_\_

6 = \_\_\_\_\_ 7 = \_\_\_\_\_\_ 8 = \_\_\_\_\_\_ 9 = \_\_\_\_\_\_ 10 = \_\_\_\_\_\_ 11= \_\_\_\_\_\_\_

12 = \_\_\_\_\_\_\_ 13 = \_\_\_\_\_\_\_\_ 14 = \_\_\_\_\_\_\_\_ 15 = \_\_\_\_\_\_\_\_ 16 = \_\_\_\_\_\_

17 = \_\_\_\_\_\_\_\_\_ 18 = \_\_\_\_\_\_\_\_\_ 19 = \_\_\_\_\_\_\_\_\_ 20 = \_\_\_\_\_\_\_\_\_

**Island 2**

Station 4: Try # 1 – 7 on your own. Answer Question #8, 9:

8)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Back to Island 1:**

Last Station - “Just Play with the Machine”. Do the following problems in base TWO: (1←2)

What is 28 in base 2? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is 30 in base 2? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is 45 in base 2? (Goes off the chart… use a pencil) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If base 2 is 10110 , what is its value in our base ten? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If base 2 is 1010110 , what is its value in our base ten? (Goes off the chart… use a

 pencil) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Do the following problems in base THREE ( 1 ←3)

What is 28 in base 3? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is 30 in base 3? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is 85 in base 3? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If base 3 is 21210 , what is its value in our base ten? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If base 3 is 101210 , what is its value in our base ten? (Goes off the chart… use a

 pencil) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Do the following problems in base FiVE ( 1 ←5)

What is 180 in base 5? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If base 5 is 14100 , what is its value in our base ten? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Island 3**

**Station 8**: Answer the 3 questions:

Question 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Question 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 4:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Last Station - “Wild Exploration”.

Question 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 3 Base 4: What is 133×4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is 2011×4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is 22×4\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Island 4**

**Station 10**:

Questions 2 - 4: Drag an “anti-dot” (a negative dot) into the upper half to “annihilate” a purple dot (a positive). Negative 1 plus positive 1 = 0.

**Station “Wild Exploration**:

Do these with dots:

232 – 167 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Choose one of your own: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Island 5**

**Station 11**:

1 = \_\_\_\_\_ 2 = \_\_\_\_\_\_ 3 = \_\_\_\_\_\_ 4 = \_\_\_\_\_\_ 5 = \_\_\_\_\_\_

6 = \_\_\_\_\_ 7 = \_\_\_\_\_\_ 8 = \_\_\_\_\_\_

**Island 11** *- Challenge*

**All, but especially Stations 11E & 11F**: