ICM Guided Notes Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6.2 The Number of Elements in a Finite Set

Notation:

Ex: 1 A = {2, 4, 6, 8} n(A) = B = {1, 2, 3, …, 30} n(B) =

Ex 2: A = {a, b, c, d, e} B = {d, e, f, g, h, i, j}

Find A $∪$ B

Find A $∩$ B

Now find each of the following:

n(A $∪$ B)= n(A) = n(B) = n(A $∩$ B) =



n(A $∪$ B) =

If n(A $∩$ B) = 0, then A and B are

Ex 3: In a survey of 120 customers, 80 buy Dawn, 68 buy Joy, and 42 buy both.

1. How many buy at least one brand?
2. Exactly one brand?
3. Only Dawn?
4. Neither brand?

n(A $∪$ B $∪$ C) =



Example 4: In a survey of 100 people at a carnival:

 40 like cotton candy

 30 like popcorn

 45 like lemonade

 15 like lemonade and popcorn

 10 like cotton candy and lemonade

 12 like cotton candy and popcorn

 5 like all three

How many people don’t like lemonade, popcorn, or cotton candy?

How many people only like popcorn?

Example 5: In a survey of 200 people regarding their investments, the following data were obtained:

 141 had investments in stocks

 91 in bonds

 60 in money markets

 47 in stocks and bonds

 36 in stocks and money markets

 36 in bonds and money markets

 5 in some other vehicle

How many had investments in all three types?

How many had investments in stocks only?