**Section 3.2**

**Activity 1**

Suppose that you can get a cheese pizza plain, or with any combination of the following toppings. How many different pizzas could you order? List them all.

{**A**nchovies, **B**lack olives, **C**anadian bacon, **D**elicious pepperoni }

**Activity 2**

What is the truth set for each of the following sets in Set Builder notation

B = { m ∈ Z | 3m >= m2 }

C = { n ∈ Z | 8 mod n = 0 }

D = { x ∈ R | x2 – 4x + 3 = 0}

F = { w ∈ R | w2 = |w| }

**Activity 3**

For the following sets:

* G = { 8, 12, 15 }
* H = { {8, 12, 15} , {14, 12} , {13, 10} }
* I = { 1, 2, 3, {3}, {4, 5}, {6, 7}, {8} , ∅ }

Answer the following questions

* What is the cardinality of G?
* What is the cardinality of H?
* What is the cardinality of I?

True or false?

* 8 ∈ G
* 8 ∈ H
* 8 ∈ I
* {8} ∈ G
* {8} ∈ H
* {8} ∈ I
* {8} ⊆ G
* {8} ⊆ H
* {8} ⊆ I