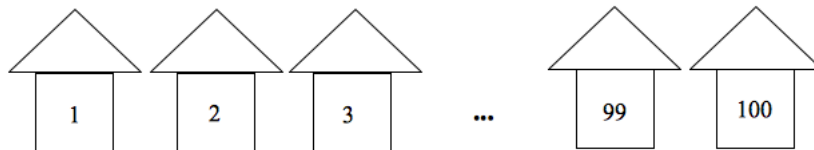


Meeting 4  
2/5/12

January 31, 2012

1. There are 100 houses on a street in a new neighborhood. The builders are ordering digits from HomeDepot so that they can number all the houses:



(a) How many digits 0 should they order?

(b) How many digits 9 should they order?

(c) How many digits 3 should they order?

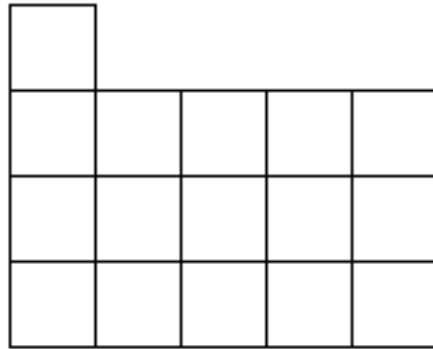
(d) How many digits 7 should they order?

(e) How many digits 1 should they order?

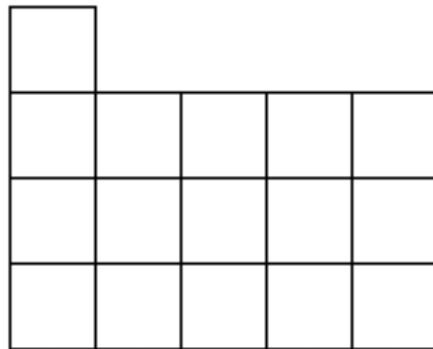
2. Jack loves to play with the light switch at his table. To turn the light on, Jack has to press a button. To turn the light off, Jack has to press the button one more time.
  - (a) One day, Jack walks into the his bedroom and it is dark. He presses the button 101 times. Will the light be on or off after that?
  
  - (b) What if he presses the button 500 hundred times?
  
  - (c) Can this idea be generalized?

3. Cut the following picture into 4 parts which have the same number of squares and the same shape.

- (a) How many squares are there total?
- (b) How many squares should each part have?
- (c) Cut the picture:



- (d) Cut the picture again. (There is two ways to do this):



4. Below is a rectangle made up of smaller rectangles.



- How many different types of rectangles are here? Draw all the different types on the left and write down the number of that type on the right.

Type of Rectangle	Number of that Rectangle

- How many rectangles are there total?

TOTAL:

5. This time you are given this rectangle:



- Make a plan to solve the problem and find out the total number of rectangles.

6. Molly and Jane each have 10 stamps. Molly wants to give Jane some stamps for her 8th birthday. How many stamps should Molly give to Jane so that Jane has 8 more than Molly. Make a picture!

7. Put signs (+ or -) between the numbers below to make the equality correct:

$$1 \square 2 \square 3 \square 4 \square 5 = 5$$

(a)

$$1 \square 2 \square 3 \square 4 \square 5 \square 6 \square 7 = 8$$

(b)