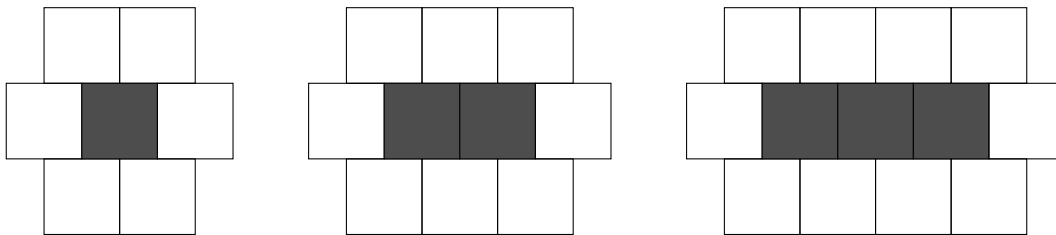# Quiz 6A, MTH 2010 - No Calculators

Dr. Graham-Squire, Spring 2015

Name: _____

1. (2 points) "I bought a bag of sugar with S cups of sugar in it. First, I used $\frac{1}{5}$ of the sugar in the bag for a brownie recipe. Then, I used $\frac{1}{2}$ cup of sugar to make pancakes. After that I gave $\frac{1}{4}$ of the remaining sugar in the bag to my neighbors. When all of that was done, I had only 2 cups of sugar left." Write an equation, involving S, that corresponds to the situation described above.

2. (3 points) The pattern below consists of a row of black squares surrounded by white squares.

How many white squares would surround a row of 312 black squares? Show/explain your work!

(A) 622

(B) 624

(C) 625

(D) 628

3. (2 points) Ellen, John and Jim caught a total of 180 ladybugs. John caught twice as many as Ellen, and Jim caught 20 more than John. How many ladybugs did each individual catch? Show your work!

4. (3 points) There are C cups of soda in a bottle. Someone pours $\frac{2}{5}$ of the soda out of the bottle. Which of the following expressions represents how much soda is left in the bottle? You should circle ALL correct answers–there may be more than one, or none at all, that are correct.

(A) $C - \dfrac{2}{5}$

(B) $\dfrac{3}{5}C$

(C) $(C - \dfrac{2}{5})C$

(D) $(1 - \dfrac{2}{5})C$

(E) $C - \dfrac{3}{5}C$