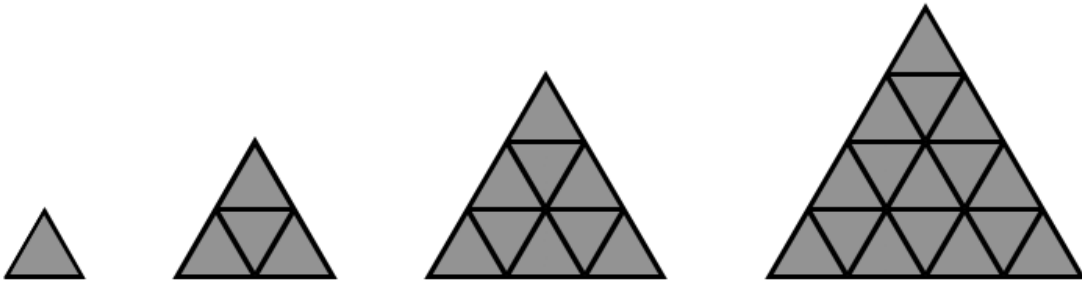MATH 221: BASIC CONCEPTS OF ELEMENTARY MATHEMATICS I

Quiz #1

Points: Each problem is worth 4 points.

1. Each of the figures below is made of small triangles like the first one in the sequence. (The second figure is made of 4 small triangles.) How many small triangles are needed to make the 100th figure in this sequence? (The idea is to find an appropriate pattern which would give you a good guess for what the answer is and to circle this good guess. This is a problem that we did in class.)

    (a) 100   (b) 200   (c) 2^{100} (d) 100^2

2. How many terms are in the sequence $1, 2, 2^2, 2^3, \ldots, 2^{20}$?

    (a) 19   (b) 20   (c) 21   (d) 22

Each multiple choice question in this class will be graded as follows. Your answer should be clearly indicated by a circle around your choice for the answer. Circle the whole answer including the letter. You will get 0 points if a wrong answer is circled (even if a correct answer is also circled), you will get 1 point if no answer is circled, and you will get 4 points for a correct answer. Do not put other marks on or around the choices. If other marks are on or around the choices (for example, if a rectangle is placed around an answer), then you will likely get 0 points for your answer depending solely on what the instructor thinks the marks indicate.