

Test 12: Name \_\_\_\_\_ ID \_\_\_\_\_

1. Describe the sequence  $1^2, 2^2, 3^3, 4^2, \dots$  recursively. Include initial conditions and assume that sequences begin with  $a_1$ .

2. Find the solution of the recurrence relation  $a_n = 2a_{n-1} + a_{n-2}$  where  $a_0 = 1, a_1 = 2$ .