

Write your name and code on the back.

1. { 5 points } **Construct the intersection graph for the following collection of sets.**

$$A_1 = \{0, 1, 2, 3\} \quad A_2 = \{2, 4\} \quad A_3 = \{4, 5, 6\}$$

$$A_4 = \{0, 2, 4, 6\} \quad A_5 = \{5\} \quad A_6 = \{1, 3, 5\}$$

2. { 5 points } **Draw the call graph for the phone numbers 555-1111, 555-2222, 555-3333, 555-6666, and 555-7777, if there are three calls from 555-1111 to 555-6666 and two calls 555-6666 to 555-1111, two calls from 555-3333 to 555-7777, one call from 555-7777 to each of the other numbers, and two calls to 555-2222 from each of 555-1111 and 555-6666.**

Label the nodes of the graph by the last digit of the phone numbers.