Objectives:
Introduce students to arrays and vectors.

Reading Assignment:
None

Contents:
1. Quiz
2. Arrays
3. Vectors
4. Describe lab assignment
1. Quiz
   - Give students 15 minutes

2. Arrays
   - Define
   - Declare
   - Initialize
   - Show example
   - Multidimensional arrays
     a. Declare
     b. Initialize
     c. Show examples

3. Vectors
   - Define
   - Declare
   - Show example

4. Lab Assignment
   - Explain Assignment
   - Answer Questions
CS 200
Week 6: Lab

Contents:
1. Describe Lab 9: Core 1, 2, 3 and Lab 11: Reinforcement

Student Activities:
1. Complete assignment
2. Demo assignment for TA
Run test plans given for each lab.

- Lab 9 Core 1 test plan – Page 177
- Lab 9 Core 2 test plan – Page 183
- Lab 9 Core 3 test plan – Page 190
- Lab 11 Reinforcement - Page 222
1. Solve the following problems
   
   a. $5 + 7 \% 5 =$
   
   b. $9 - 4 \times 2 \% 3 =$

2. You are printing values for $x$ and $y$. The outer loop control index is $x$, and ranges from 1 to 5 by 1s. For each value of $x$, the entire inner loop, which is $y$, is executed again starting from 1 until it is less than 10. Fill in the blanks

   ```cpp
   #include <iostream.h>

   int main ()
   {
       int x, //row loop control index
           y; //column loop control index

       for ( ________________ )
       {
           cout << __________ << ______;
           for(________________)
           cout << __________ << ______;
           count << endl;

       }

       return 0;
   }
   ```
1. Solve the following problems

   a. 2
   
   b. 1

2. You are printing values for x and y. The outer loop control index is x, and ranges from 1 to 5 by 1s. For each value of x, the entire inner loop, which is y, is executed again starting from 1 until it is less than 10 by 1s. Fill in the blanks

   ```cpp
   #include <iostream.h>

   int main ()
   {
       int x, //row loop control index
           y; //column loop control index

       for ( x = 1; x <= 5; x++)
       {
           cout << " x = " << x;

           for(y = 1; y < 10; y++)
           {
               cout << " y = " << y;

               cout << endl;
           }
           cout << endl;
       }
       return 0;
   }
   ```