

16.216: ECE Application Programming
Spring 2012

Lecture 24: Key Questions

March 28, 2012

1. Write a function that:
 - Given two integer arguments, x and y , store the quotient and remainder of x / y into locations specified by arguments q and r , respectively.

PE4: Functions

This exercise functions on the “change problem”—write a program that will, given an amount of change to be returned, determine the minimum number of coins required to fulfill that amount. In this specific problem, the amount is \$2.00 or less, and the coins available are half dollars, quarters, dimes, nickels, and pennies.

Use the space below and on the following page to draw a flowchart for this program.

Extra space to draw overall program flow chart

Under what circumstances do you use functions? Identify the best opportunity to use a function in this program, and draw a flowchart that incorporates the function, as well as calls to that function.