

Changer Project

The given program makes change for a dollar, given a cost. You are to "grow" this program in all of the following ways, ending up with one larger program, not many smaller ones.

- a. Enter the given program.
- b. Modify it to prompt and input the cost and any amount tendered.
- c. Extend it to include dimes and half dollars.
- d. Grow it further to print out also the total amount of change (in cents).
- e. Add any other modification that you can think of.
- f. Turn in one final program with sufficient sample runs, some hand checked.

```
-- Name An Omynous
-- Does make change from a dollar given cost

Boxes pennies, nickels, quarters,
      cents, cost, amount ofType int

-- Setup the cost, amount tendered and cents
Set cost = 11
Set cents = 100 - cost --remaining cents

-- Divide cents by 25 for quarters and cents
Set quarters = cents / 25
Set cents = cents % 25

-- Divide cents by 5 for nickels and pennies
Set nickels = cents / 5
Set pennies = cents % 5

-- Output change: larger denominations first
Output "The number of quarters is "
Outputln quarters

Output "The number of nickels is "
Outputln nickels

Output "The number of pennies is "
Outputln pennies

Outputln " " -- gap between tests

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-- a run:
-- The number of quarters is 3
-- The number of nickels is 2
-- The number of pennies is 4
```