greedy

TODO

- prompt user for an amount of change
- always use the largest coin possible
- keep track of coins used
- print the final number of coins

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prompt user

C

- `get_float`
- `#include <cs50.h>`

Python

- `get_float`
- `import cs50`

validate input

C

Python

```
do
{
    // something happens
}
while (condition);
```

validate input

C

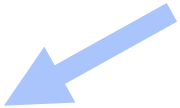
```
while (condition)
{
    // something happens
}
```

Python

```
while condition:
    # something happens
```

“do-while” loop

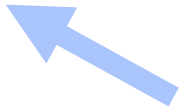
```
while True:
    # prompt user
    if condition:
        break
```



executes at least once

“do-while” loop

```
while True:
    # prompt user
    if condition:
        break
```



checks
condition

dollars ($) to cents (¢)

- input is a value in dollars
- convert: $1 = 100¢
- `round`

TODO

- ☑ prompt user for an amount of change
- ☐ always use the largest coin possible
- ☐ keep track of coins used
  - how many coins to be returned
  - amount to be returned
- ☐ print the final number of coins

modulo math

- % returns the remainder of the division
  - `50 % 5 == 0`
  - `50 % 10 == 0`
  - `50 % 50 == 0`
  - `50 % 49 == 1`
  - `53 % 50 == 3`
- `x // y` for integer division
- `x / y` for float division

TODO

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printing variables

C

```
printf("%i\n", coins);
```

placeholder for an integer

variable to be printed

printing variables

C

```
printf("%i\n", coins);
```

Python

```
print(coins)
```

variable to be printed

TODO

- ☑ prompt user for an amount of change
- ☑ always use the largest coin possible
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- ☑ print the final number of coins

this was greedy