## Greedy Design

#### Review

## binary

#### Scratch

### data types

#### #include

## printf()

%i, %f, %c,...

#### while loops

## do while loops

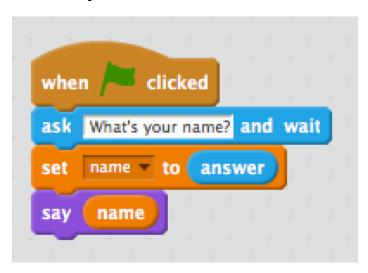
# for loops

Create a program that takes in a float value for x and prints to the screen the related value of y using the linear function y = 5x + 2.

#### Ex:

Enter a value for x:  $\underline{4}$  y = 22.0000

Create a program in C with similar functionality to the Scratch Script below. Assume say is printf().



What will the following code segment do?

```
grade = 0;
for (float i = 0.0; i < 2.5; i += 0.5)
{
    grade += i;
}
printf("%.1f\n", grade);</pre>
```

Another student implemented the previous problem like this:

```
grade = 0;
for (float i = 0.0; i != 2.5; i += 0.5)
{
    grade += i;
}
printf("%.1f\n", grade);
```

However, his program appears to run forever and not print out anything (an infinite loop!). Why is this?

#### Write the following in binary:

- 1) 124
- 2) 56
- 3) 23

#### Write the following in decimal:

- 1) 11001100
- 2) 10000101