

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: 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);
```

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