

**Team:** \_\_\_\_\_

**Team Members:**

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## 1 Interpreting Programs

What do the following programs print?

**A.**

```
# assume the user enters the numbers "7 3 2 -1"
value = float(input("Enter a number: "))
prod = 1
while value > 0:
    prod = prod * value
    value = float(input("Enter a number: "))
print(prod)
```

**B.**

```
number = 7
times = 0

while number > 0:
    number = number - 2
    times = times + 1
print(times)
```

**C.**

```
# assume the user enters 5
start = int(input("Enter start: "))
for num in range(start, 0, -1):
    print(num, "...")
print("Blastoff!")
```

**D.**

```
# assume the user enters 5
end = int(input("Enter end: "))

tot = 0
for i in range(1, val + 1):
    tot = tot + i
print(tot)
```

## 2 Writing Programs

**A.** Write a program that reads in a number from the user, and a message. The program should then print the message out “number” many times. For example, if they enter 3 and “Hello”, then the program should print “Hello” three times.

**B.** Write a program which will let the user print the length of strings, for as many as they want. It should ask them to enter a string and then print the length of it. It should keep doing this until they enter an empty string (with a length of 0). Then the program should end.

**C.** Your younger sibling is working on learning their times tables. They want help with specific numbers, so have asked you to write a program to print one column of a times table. For example, if they want help with 7, your program would print:

```
7 * 1 = 7
7 * 2 = 14
7 * 3 = 21
...
7 * 10 = 70
```

Your program should read in the number they want the times table column of (7 of this case). It should then output this column showing the products of the number with 1 through 10. f

**D.** [Challenge] The Fibonacci series is a sequence of numbers. The first two numbers in the series are both 1. Each number after that is the sum of the previous two numbers. So the series starts as "1, 1, 2, 3, 5, 8, 13, 21...". Write a program to print the first 10 numbers in the series.