①   s

A teacher is writing a code segment that will use variables to represent a student's age and whether or not the student is currently sitting. Which of the following variables are most appropriate for the code segment?

(A) A numeric variable named a and a Boolean variable named s

(B) A string variable named s and a numeric variable named a

(C) A numeric variable named studentAge and a Boolean variable named isSeated

(D) A string variable named studentAge and a numeric variable named timeSeated

Data types

* String = sequence of Characters
* number = numerical value
* Boolean = True or False
  ↳ same in Python / AP

variable names

* should be _descriptive_ of the type of info they store.

Python	AP Test
Different kinds of #'s are stored as different data types	All number variables are grouped together as **numbers**
Integers : whole numbers (...-1, 0, 1...)	
floats : Decimals (1.0, 1.5, 1.567...)	

②

Consider the following program, which uses the variables start, end, and current.

```
start ← 1
end ← 20
current ← 4
start ← current
current ← current -1
DISPLAY (current)
DISPLAY ( start )
```
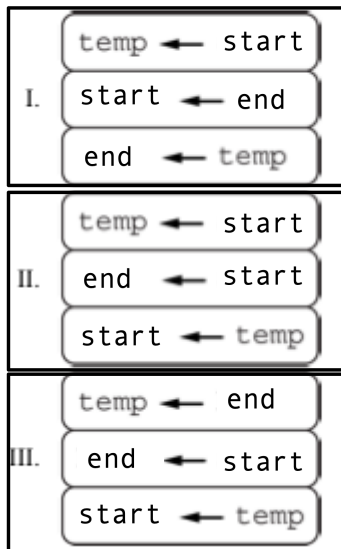
reminder: **This means to show the variable value** on screen
not name

What is displayed as a result of executing the program?

(A) 1 3

(B) 3 3

(C) 3 4

(D) 4 4

(3)

Assume that the variables `start` and `end` each are initialized with a numeric value. Which of the following code segments can be used to interchange the values of `start` and `end` using the temporary variable `temp`?

I.
```
temp ← start
start ← end
end ← temp
```

II.
```
temp ← start
end ← start
start ← temp
```

III.
```
temp ← end
end ← start
start ← temp
```

(A) I and II only

(B) II and III only

(C) I and III only

(D) I, II, and III

you do:

(1)

A student is writing a program to model different real-world events using simulations. Which of the following simulations will generate a result that would best be stored using a `numeric` variable? `Select all`

(A) A simulation of flipping a fair coin

(B) A simulation of rolling a fair die (with sides numbered 1 through 6)

(C) A simulation of the temperature in a location over time

(D) A simulation of traffic patterns on a road

②

A code segment will be used to swap the values of the variables *a* and *b* using the temporary variable *temp*.

Which of the following code segments correctly swaps the values of *a* and *b* ?

(A)
```
a ← b
temp ← a
b ← temp
```

(B)
```
temp ← a
b ← temp
a ← b
```

(C)
```
temp ← a
a ← temp
a ← b
```

(D)
```
temp ← a
a ← b
b ← temp
```

③

Consider the following code segment.

```
p ← 10
q ← 11
r ← 12
s ← 13
p ← q
q ← r
s ← q
r ← p
```

(A) 10

(B) 11

(C) 12

(D) 13

What is the value of s as a result of executing the code segment?