```java
boolean[] answers = { true, true, false, false };

answers[0] = false;
answers[2] = true;

for(int i = 0; i < answers.length; i++) {
    boolean b = answers[i];
    System.out.print(b + " ");
}
```

4

What does the preceding code fragment output?

answers

0	~~false~~ ~~true~~
1	true
2	~~true~~ ~~false~~
3	false

○ true true false false

○ true true true false

◉ false true true false

○ false true false false

false true true false

---

i++ - means add 1 to i

"Akron" is the fourth element of the array, which means its index is 3.

answers.length

4

Loops
while
do while
for

③ Loops and Arrays 3

```java
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answers[0] = false;
answers[2] = true;
```

```java
for(int i = 0; i < answers.length; i++) {
    boolean b = answers[i];
    System.out.print(b + " ");
}
```

answers

0	~~false~~ ~~true~~
1	true
2	~~true~~ ~~false~~
3	false

intialize   condition   altering

for (int i = 0; i ☑ answers.length; i++) {
    boolean b = answers[i];
    System.out.print(b + " ");
}

What does the preceding code fragment output?

output

false true true false

○ true true false false

○ true true true false

◉ false true true false

○ false true false false

false true true false

RESET INPUT   CHECK ANSWER

Loops and Arrays 5
Submitted on Today at 9:41 AM

```
int sum = 0;
for(int i = 10; i > 0; i -= 3) {
    sum += i;
}
System.out.println(sum);
```

What value does the preceding fragment display?

```
22
```

✓ Correct

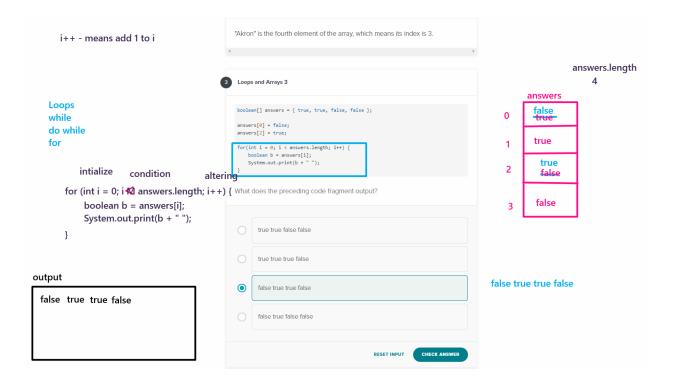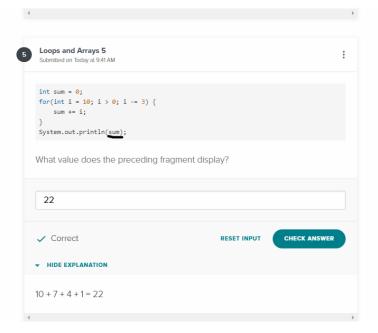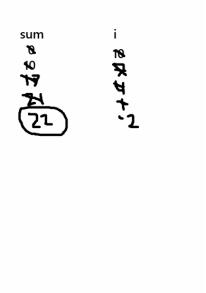RESET INPUT   CHECK ANSWER

▾ HIDE EXPLANATION

10 + 7 + 4 + 1 = 22

Loops and Arrays 6
Submitted on Today at 9:43 AM

```
1)  int sum = 0;
2)  for(int i = 0; i < 10; i++) {
3)      sum += i;
4)  }
5)  int count = i;
```

The preceding code fragment causes a compiler error. Which line causes the error?

○ Line 1

○ Line 2

○ Line 3

○ Line 4

int sum = 0;
int i;

for (i = 0; i < 10; i++){
    sum += i;
}
int count = i;

for (i = 0;

sum is re-declared and initialized to 0 at the beginning of each iteration of the loop, so it doesn't accumulate a sum. If the intention was to add up all the values of i, the declaration of sum should be moved before the beginning of the loop.

8 **Loops and Arrays 8**
Submitted on Today at 9:57 AM

⋮

```
int[] numbers = new int[10];
for(int ix = 0; ix < numbers.length; ix++) {
    numbers[ix] = ix * 2;
}

int result = numbers[3];
```

What is the value of `result` after this code executes?

6   **6**

✓ Correct   RESET INPUT   CHECK ANSWER

▾ HIDE EXPLANATION

After the `for` loop, `numbers` contains [0, 2, 4, 6, 8, 10, 12, 14, 16, 18], so

numbers.length
10

numbers

0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18

ix

3

Arrays: Declaration Syntax

An array has the following syntax:

```
int [] team1Score = new int [4];
```
4 - how many elements

String[] names = new String[23];

int[] numbers = { 4, 5, 6, 7};

team1Score

0	
1	
2	
3	

Give your array a size. **Arrays are of fixed size**.

Give your array a name

On the right of the equal sign, you need to type the keyword new followed by the data type and another pair of square brackets. Inside the brackets you need to specify the size of the array.

Start off by defining a data type followed by an empty set of square brackets.

names[0] = "Josh";
names[1] = "Dominic";
names[2] = "Brian";

new is what sets aside the computer memory for the array