Step Into Java: Intro to Arrays

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Java

How many variables in a program before it gets too hard to read in, compare,…?
- averaging 3 scores (3 variables?)
- averaging 10 scores (10 variables?)
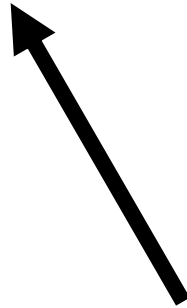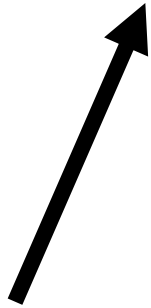- averaging 100 scores (100 variables?)
- scoring an Olympic athlete (?)

Array: one variable, holds a list of values

Array Definition

- list of values of the same type stored in one variable
- each value in the list is an element
- the array is just one variable (array variable)
- the array variable initially has no elements
- assign number of elements when "new" is run
- each element initially has no value

Array Variable Creation

int[] arnold;

variable name

variable **arnold** is
of type int-array

Array Variable: Set the Size

variablename = new type[#elements]

arnold = new int[100];

Note: This command constructs the array.

Array Variable: Get the Size

System.out.print(arnold.length);

Note: have to set the size before you can get the size

Array Variable: Learn to Start from zero

- array elements start at zero
- access the first element with []

-"Ok, on the count of three. Ready? Zero, one, two!"

Array Variable: Setting Element Values

```
arnold[0] = 10;
arnold[1] = joe.readInt();
```

Array Variable: Setting Element Values

```
int[] arnold;
int count;
arnold = new int[100];
count = 0;
while(count < arnold.length)
{
        arnold[count] = 0;
        count = count +1;
} // endwhile
```

Repeat Lab

Olympic Scoring:

- Figure skating has 7 judges.
- The highest and lowest scores are removed and the athlete's score is the average of the remaining five.
- Write an olympic scoring program.