Name: Andrew Daniello

Stage 2 Post

Fill in The Blank

1. If you want to convert a double variable to an int value, you typecast it by putting (int) before the variable name.

2. When we count, we increment the number repeatedly.

3. Suppose a class had 32 students. You could use a(n) Array to hold the grades that students earned on an exam.

4. We use a(n) array so that we don't have to assign values throughout our code.

Be the Machine

For each of the following, give the value of the expression. Be careful to pay attention to precedence rules

5. 32 % 10 | 2 |

6. 30 % 10 | 0 |

7. 25 % 10 | 5 |

8. 3 * 4 | 12 |

9. 3 + 5 * 4 | 32 |

For each of the following pieces of code, give the value of the variable x when the code has been executed

10.
```
int x;
x = 42;
x++;
```
43

11.
```
double x;
x = 42/10;
```
4.2

12.
```
double x;
x = 42/10.0;
```
4.2

13.
```
int x;
int y;
y = 42;
x = 0;
while (y > 0)
{
        y = y – 10;
        x++;
}
```
22 12 2

0 1 2 3 4

14.
```
int x;
int y;
y = 5;
x = 12;
while (y > 0)
{
        x = x + y;
        y--;
}
```
5 12
4 17
3 21
2 24
1 26
0 27

15.
```
int x = 2;
for(int I = 0; i< 3; i++)
{
        x = x + i;
}
```
I [0 1 2 3

2 2 3 5

Random Numbers

What is the range of integers that can be returned by each of the following expressions?

16. (int)(Math.random() * 8 + 15) — 15 , 23

17. (int)(Math.random() * 5 – 4) — -4 , 1

18. (int)(Math.rancom()) * 42 + 5) — 5 , 47

Short Answer

19. Write the for loop that is equivalent to this while loop:

```
int x;
x = 5;
while (x < 10)
{
        System.out.println(x);
        x++;
}
```

```
for (int x=5; x<10; x++)
{
  System.out.println(x);

}
```

Code

For the problems in this part of the assignment, use the scrapbook to write the code and then copy/paste it here when it works. For each problem, start with this code to declare an array and give it values:

int[] x = {1, 3, 5, 11};

20. Write a snippet that prints a running total of the values in the array x with each value on a separate line. (hint: a running total is the sum you get as you add each new value into the total. For the data given, the running total would be the values 1, 4, 9, 20.)

Paste your code here:

```
int[] x = {1,3,5,11}
int sum = 0;
for (int i= 0; i <x.length; i++){
   Sum = x[i] + sum;
   System.out.println(sum);
}
```

21. Write a snippet that prints a running total of the values in the array x on a single line

Paste your code here:

```
int[] x = {1,3,5,11}
int sum = 0;
for (int i = 0; i < x.length; i++){
   Sum = x[i] + sum;
   System.out.print(sum);
}
```