**Name :** _____ **Date :** _____

# LOOP QUIZ 2A

**Show the output of each block of code below. ( 100 points )**

1. What is the output?

```
for(int i=3; i<=9; i=i+2)
{
   out.println(i);
}
```

2. What is the final value of `i` in the problem above when the for loop is complete?

3. What is the output?

```
for(int j=10; j>-2; j-=4)
{
   out.println(j);
}
```

4. What is the final value of `j` in the problem above when the for loop is complete?

5. Label the four parts of a `for` loop:

<*1>
<*2>
<*3>
<*4>

```
for(<*1>; <*2>; <*3>)
{
   <*4>
}
```

6. Identify the mistake(s) in the code:

```
int total == 0;
For(int i=1; i<8; i++);
{
   total = total + i;
   out.println(total);
```

7. Trace the code at right.

| m | sum | output |
|---|---|---|

```
int sum=0;
for(int m=4; m<8; m++)
{
   sum=sum+m;
}
out.println(sum);
```

Draw the picture for the loops below. **Unless stated, assume shapes are noFill()** Partial credit given.

8.
```
for(int val = 200; val <= 400; val +=100)
   triangle(100, 400, val, 400, 250, 200);
```

9.
```
for(int myst = 50; myst >= 10; myst -= 10)
    rect(50-myst,0,myst,myst);
```

10.
```
for(int i=0; i<4; i++)
{
   fill(255-i*60);
   ellipse(i * 40, 0, 40, 40);
}
```

11.
```
for(int i = 0; i < 6; i++)
{
  if(i % 2 == 0)
    fill(0);
  else
    fill(255);
  rect(i * 30, 0, 30,30);
}
```

12.
```
int space = 100;
for(int i = 0 ; i<5; i++)
  line(0,i*space, i*space, 400);
```

13.
```
translate(width/2,height/2);  //move to middle of screen
for(float theta = 0; theta < 2 * PI; theta += 2*PI/3)
{
      pushMatrix();
      rotate(theta);
      rect(0,0,40,40);
      popMatrix();
}
```

**Name :** _____ **Date :** _____

# LOOP QUIZ 2B

**Show the output of each block of code below. ( 100 points )**

1. What is the output?

```
for(int i=2; i<=8; i=i+3)
{
   out.println(i);
}
```

2. What is the final value of `i` in the problem above when the for loop is complete?

3. What is the output?

```
for(int j=5; j>-2; j-=3)
{
   out.println(j);
}
```

4. What is the final value of `j` in the problem above when the for loop is complete?

5. Label the four parts of a `for` loop:

```
<*1>
<*2>
<*3>
<*4>
```

```
for(<*1>; <*2>; <*3>)
{
   <*4>
}
```

6. Identify the mistake(s) in the code:

```
int sum == 0;
For(int i=5; i<11; i++);

   sum = sum + i;
   out.println(sum);
}
```

7. Trace the code at right.

| m | total | output |
|---|---|---|
| | | |

```
int total=0;
for(int m=5; m<9; m++)
{
   total = total + m;
}
out.println(total);
```

Draw the picture for the loops below. **Unless stated, assume shapes are noFill()** Partial credit given.

8.
```
for(int val = 200; val <= 400; val +=100)
   triangle(100, 400, val, 400, 250, 200);
```

9.
```
for(int myst = 50; myst >= 10; myst -= 10)
    rect(50-myst,0,myst,myst);
```

10.
```
for(int i=0; i<4; i++)
{
   fill(255-i*60);
   ellipse(i * 40, 0, 40, 40);
}
```

11.
```
for(int i = 0; i < 6; i++)
{
  if(i % 2 == 0)
    fill(0);
  else
    fill(255);
  rect(i * 30, 0, 30,30);
}
```

12.
```
int space = 100;
for(int i = 0 ; i<5; i++)
  line(0,i*space, i*space, 400);
```

13.
```
translate(width/2,height/2);  //move to middle of screen
for(float theta = 0; theta < 2 * PI; theta += 2*PI/3)
{
      pushMatrix();
      rotate(theta);
      rect(0,0,40,40);
      popMatrix();
}
```