```
/*---------Title-----------

  File: count1.ino
  Started: 10/31/13
  Program Description: Program illuminates  LEDs to
  count in binary from 1 to 255.
  Note: Use 1K resistors to limit current from the Arduino.

*/

//-----Initializations-----

int timer = 250;// Set the time for each number
                // displayed in ms.
int           x;// Create a variable whose name is x
                // and whose type is int.

void setup() {
  // Use a for loop to initialize each pin as an output.
  for (int Pin = 0; Pin < 8; Pin++)  {
    pinMode(Pin, OUTPUT);
  }
}

// --------Main Code--------

void loop() {
 // Use for loop to count from 1 to 255.
 for (int x = 1; x < 256; x++){
    // Set PORTD (digital pins 0-7) to equal x
    PORTD = x;
    /* Illuminate LEDs to display binary number.
    For example, when x = 4 the binary number
    for 4 is %00000100.  This command sets
    PORTD to %00000100, bringing pin 2 HIGH which
     turns on the LED connected to it.
    All of the pins are set LOW leaving their
     respective LEDs off.
```

```
   */
    digitalWrite(PORTD,HIGH);
    delay(timer);
  }
  while(1)         {}// Creates an endless loop; the
                     // program never returns to the
                     // loop function.
}
```