```
//TMP36 Pin Variables
int sensorPin = 0;//the analog pin the TMP36's Vout (sense) pin is connected to
                  //    the resolution is 10 mV / degree centigrade with a
                  //    500 mV offset to allow for negative temperatures

/*
 * setup() - this function runs once when you turn your Arduino on
 * We initialize the serial connection with the computer
 */
void setup()
{
  Serial.begin(9600);  //Start the serial connection with the computer
                       //to view the result open the serial monitor
}

void loop()                     // run over and over again
{
 //getting the voltage reading from the temperature sensor
 int reading =analogRead(sensorPin);

 // converting that reading to voltage, for 3.3v arduino use 3.3
 float voltage = reading * 5.0;
 voltage /= 1024.0;

 // print out the voltage
 Serial.print(voltage); Serial.println(" volts");

 // now print out the temperature
 float temperatureC = (voltage - 0.5) * 100 ;//converting from 10 mv per degree wit 500
                                              //to degrees ((volatge - 500mV) times 100)
 Serial.print(temperatureC); Serial.println(" degrees C");

 // now convert to Fahrenheight
 float temperatureF = (temperatureC * 9.0 / 5.0) + 32.0;
 Serial.print(temperatureF); Serial.println(" degrees F");

 delay(1000);                                     //waiting a second
}
```