

ŘEŠENÍ ÚLOH

Úkol A)

```
1  int termistorPin = 0;
2  int Vout;
3  float R2 = 10000;
4  float logR1, R1, T, Tc, Tf;
5  float c1 = 1.009249522e-03, c2 = 2.378405444e-04, c3 =
6  2.019202697e-07;
7
8  void setup() {
9      Serial.begin(9600);
10 }
11
12 void getFahrein(Tc) {
13     return (Tc * 9.0) / 5.0 + 32.0;
14 }
15
16 void getCelsius(T) {
17     return T - 273.15;
18 }
19
20 void loop() {
21     Vout = analogRead(termistorPin);
22     R1 = R2 * (1023.0 / (float)Vout - 1.0);
23     logR1 = log(R1);
24     T = (1.0 / (c1 + c2*logR1 + c3*logR1*logR1*logR1));
25
26     Tc = getCelsius(T);
27     Tf = getFahrein(Tc);
28
29     Serial.print("Teplota: ");
30     Serial.print(Tf);
31     Serial.print(" F; ");
32     Serial.print(Tc);
33     Serial.println(" C");
34
35     delay(500);
36 }
```