/\*\*\* header block \*\*\*

 \* code file name: **ubit-test-digital-out.ino**

 \* hardware board (UNO/Nano/microbit..etc): **microbit v2.0**

 \* sensors and devices needed: builtin 5x5 LED matrix

 \* code description:

        this code tests digital output hardware functionality

        by blinking one (center) LED on the 5x5 LED matrix

and displaying a message in serial monitor.

 \* IDE version used to test code: **Arduino IDE v2.0.2**

 \* programmer(s) name: Instructor

 \* date when code is created/modified: 2022\_1120

 \* code version/revision: v1.0

 \*\*\*/

// compiler directives (none)

// include libraries (none)

// pin name definitions

// see variant.cpp for arduino pin numbers for microbit v2

#define COL 3   // COL3 control pin

#define ROW 23   // ROW3 control pin

#define LED ROW  // ROW3 LED

// class/object declarations (none)

// global variables (none)

void setup() {

  // configure hardware peripherals

  // ground LED cathode

  pinMode(COL, OUTPUT);

  digitalWrite(COL, LOW);

  // set ROW pin as digital output pin

  pinMode(ROW, OUTPUT);

  // configure data communication

  Serial.begin(115200);

  // code that runs only once

  Serial.println("microbit is ready!");

}

void loop() {

  // data comm operation

  // print heart-beat message

  Serial.println("blink!");

  // data output operations

  digitalWrite(LED, HIGH);

  delay(100);

  digitalWrite(LED, LOW);

  delay(100);

  digitalWrite(LED, HIGH);

  delay(100);

  digitalWrite(LED, LOW);

  delay(700);

}