

Name: _____

Quiz 9

In the following pieces of code, circle all the syntax mistakes if any and explain the error, or indicate "it's correct":

1.

```
#include <msp430.h>
void main (void) {
    WDTCTRL = WDTPW+WDTHOLD;           //WDTCTL
    P1DIR = 0x02;
    unsigned int i = 0;
    unsigned int j = 0;
    while (1) {
        P1OUT = 0x01;                   //Can't output to P1.0
        for (i = 0; i < 30000; i++)
            j++;
        P1OUT = 0x02;
        j = 0;
        for (i = 0; i < 30000; i++)
            j++;
        j = 0;
    }
}
```

=====

2.

```
#include <mps430.h>                       //msp430.h
void main (void) {
    WDTCTL = WDTHOLD;                     //WDTPWD
    P1DIR = 0x03;
    unsigned int i = 0;
    unsigned int j;
    while (1) {
        P1OUT = 0x01                       // semicolon ;
        for (i = 0; i < 30000, i++)         // semicolon ;
            j++;
        P1OUT = 0x02;
        j = 1;
        for (i = 0, i < 30000; i++)        // semicolon ;
            j++;
        j = 2;
    }
}
```

3.

```
#include <msp430.h>
void main (void) {
```

```

WDTCTL = WDTPW;
P2DIR = 0x03;
P2OUT = 0x21; // invalid output to P1.5
unsigned int i = 0;
unsigned int j;
while (1) {
    P2OUT = 0x03;
    for (i = 0; i < 30000; i++)
        j++;
    P1OUT = 0x02; // P2OUT
    j = 1;
    for (i = 0; i < 30000; i++)
        j++;
    j = 2;
}
}

```

4.

```

#include <msp430.h>
int main(void) {
    int R4, R5, R6;
    WDTCTL = WDT_MDLY_8;
    IE = WDTIE; //IE1
    P2DIR = 0xFF;
    P1DIR = 0x09;
    P2OUT = 0x3F;
    P1OUT = 0x00;
    R5 = 0x3F;
    P1SEL &= ~0x08;
    P1REN |= 0x08;

    while(1){
        _BIS_SR(GEI); //GIE
    }
}

#pragma vector = WDT_VECTOR
interrupt void WDT_ISR(void){ //__interrupt
    R4++;
    if(R4==37) { R5++; } // R4,R5,R6 must be global variables
    else { R6++; }
    R5 = 0; R6 = 0;
}

```