指標與時間複雜度練習

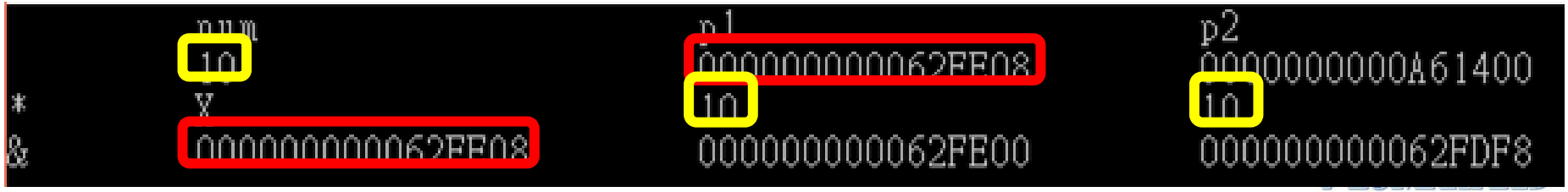
- 練習指標
- 練習計算時間複雜度

```
          num                     p1                      p2
          10                      000000000062FE08        0000000000A61400
*         X                       10                      10
&         000000000062FE08        000000000062FE00        000000000062FDF8

輸入陣列大小：20
計算陣列總和，時間複雜度為：43
請按任意鍵繼續 . . .
```

指標練習

```
10      int num, *p1, *p2;
11
12      num = 10;
13      p1 = &num;
14      p2 = ( int * ) malloc ( sizeof (int) );
15      *p2 = num;
```



計算時間複雜度

```
int i;

int j = 50;   count ++;

i = i + j;    count ++;

for (......) {  count ++;          } count ++;

if (......) {                      } count ++;

return i;     count ++;
```

VRMLAB
虛擬實境暨多媒體實驗室

計算時間複雜度

```
37  int array_sum(int list[ ], int n)
38  {
39      int tempsum = 0;
40      int i;
41
42      for (i = 0; i < n; i++)
43      {
44          tempsum += list[i];
45      }
46
47
48      return tempsum;
49  }
```

計算時間複雜度

```
37  int array_sum(int list[ ], int n)
38  {
39      int tempsum = 0;      count ++;
40      int i;
41
42      for (i = 0; i < n; i++)
43      {   count ++;
44          tempsum += list[i];      count ++;
45      }   count ++;
46
47      count ++;
48      return tempsum;
49  }
```

$1+n(1+1)+1+1$

$=2n+3$

```
輸入陣列大小：20
計算陣列總和，時間複雜度為：43
請按任意鍵繼續 . . .
```