

$3^5 \text{ 即 } 3^5$

$-3^2 = -9$

$(-3)^2 = 9$

$-(3^2) = -9$

$(-3^2) = -9$

$3 * 5 / 15$

「*和/」, 「+和-」 運算優先 順序一樣, 那就是先遇到的先做

5.6 \ 3 = 6 \ 3 = 2 整數除(\)必需先將前後運算的 2 個數字都先轉成整數才做整數除運算

$6.6 \ 3 = 7 \ 3 = 2 \quad 6 \ 3.5 = 6 \ 4 = 1 \quad 7.5 \ 2.5 = 8 \ 2 = 4$

$5.5 \ 3 = 6 \ 3 = 2 \quad 6 \ 3.6 = 6 \ 4 = 1 \quad 8.5 \ 1.5 = 8 \ 2 = 4$

$4.5 \ 3 = 4 \ 3 = 1 \quad 6 \ 2.5 = 6 \ 2 = 3 \quad 8.6 \ 2.6 = 9 \ 3 = 3$

Mod 運算(求餘數)若遇到小數就 直接除, 不用化成整數再運算, 但商數只求到 整數 就 stop 了。

$5 \text{ Mod } 2 = \text{餘 } 1$

$6 \text{ Mod } 2 = 0$

$25 \text{ Mod } 2 = 1$

$1587 \text{ Mod } 2 = 1$

$257836874 \text{ Mod } 2 = 0$

$34 \text{ Mod } 6 = 4$

$49 \text{ Mod } 11 = 5$

$5.8 \text{ Mod } 2.2 = 1.4$

$34.5 \text{ Mod } 7 = 6.5$

$2^5 - 2 * 10 / 2 // (83 \text{ mod } 15)$

「+」運算中有一特例：數值 + 字串 = 數值

$2 + 5 = 7$

$"2" + 5 = 7$

$2 + "5" = 7$

$"2" + "7" = "27"$

“呆” + 7 = 出現錯誤 “呆” + “7” = “呆 7”

+ 和 & 都可以做字符串合併，但是 + 號必需前後都是字串資料(有雙引號)，而 & 是將所有的資料都合併成字串

2 & 7 = “27” “2” & 7 = “27” 2 & “7” = “27”

“呆” & 7 = “呆 7” 7 & “呆” = “7 呆”

5 > 5 => False, 5 >= 5 => True

“Apple” <> “apple” = 先比第 1 個字元，即 “A” <> “a” =? 即比此 2 個字元的 ASCII 碼 65 <> 97 = 真的(True)

ASCII 碼：

| | | |
|----------|----------|----------|
| 0, 1 ~ 9 | A, B ~ Z | a, b ~ z |
| ↓ ↓ | ↓ | ↓ |
| 48, 49 ~ | 65, 66 ~ | 97, 98 ~ |

“AKB” < 48 = 65 < 52 (要比 ASCII 碼) = False(假的)

“Apple” > “Air” = 第 1 個字元都一樣時,就往下比, 以此類推....so 是比 “p” > “l” = True

$-5 \wedge 2 \geq 5 \wedge (-2)$

$-25 \geq \frac{1}{25}$

$4 \wedge 2 = 4^2$

$2 \wedge 6 = 2^6$

$16 \wedge 0.5 = 16 \wedge (1/2) = \sqrt[2]{16}$

$125 \wedge (1/3) = \sqrt[3]{125}$

$8 \wedge 0.125 = 8 \wedge (1/4) = \sqrt[4]{8}$

$16 \wedge (-2) = \frac{1}{16^2} = \frac{1}{256}$

$2 \wedge (-10) = \frac{1}{2^{10}} = \frac{1}{1024}$

Int 正數：無條件捨去

負數：無條件進位

Fix 正負數：都無條件捨去

X 為正數：Int(X)=Fix(X)

X 為負數：Int(X)=Fix(X)-1 ex: Int(-5.1)=-6 Fix(-5.1)=-5

| a | b | c |
|---|----|---|
| 1 | 30 | 0 |
| 1 | 29 | |
| 1 | : | |
| : | : | |
| 1 | 1 | 1 |
| 1 | 31 | |
| 3 | 30 | |
| 3 | 29 | |
| 3 | 28 | |
| | : | |
| : | : | |
| 3 | 3 | 2 |
| 5 | | |

| I | S=S+I*R | R |
|----|---------|----|
| | 1 | 1 |
| 1 | 2 | -1 |
| 2 | 0 | 1 |
| 3 | 3 | -1 |
| 4 | -1 | 1 |
| 5 | 4 | -1 |
| 6 | -2 | 1 |
| 7 | 5 | -1 |
| 8 | -3 | 1 |
| 9 | 6 | -1 |
| 10 | -4 | 1 |
| 11 | | |

| K=1 to 3 | M=1 to K | S=S+K*M |
|----------|----------|---------|
| 1 | 1 | S=S+1*1 |
| 2 | 1 | S=S+2*1 |
| 2 | 2 | S=S+2*2 |
| 3 | 1 | |
| 3 | 2 | |
| 3 | 3 | |

| K=1 to 6 step 2 | J=3 to 8 step 3 | S=S+J |
|-----------------|-----------------|-------|
| 1 | 3 | 3 |
| 1 | 6 | 9 |
| 1 | 9 exit | |
| 3 | 3 | 12 |
| 3 | 6 | 18 |
| 3 | 9 exit | |
| 5 | 3 | 21 |
| 5 | 6 | 27 |
| 5 | 9 exit | |
| 7 exit | | |

| J=2 to 4 | X | Y |
|----------|-------------|----|
| | 16 | 22 |
| 2 | 14 | 6 |
| | 8 | 6 |
| | 6 exit loop | |
| 3 | | |
| 4 | | |
| 5 exit | | |

$\frac{800\text{pixel} \times 600\text{pixel}}{200 \quad 200}$ 200dpi (ppi) dpi (dot per inch) ppi (pixel per inch)
 4 inch * 3 inch ↓
 500dpi

1.6 inch * 1.2 inch

i=1 n=0+FNP(1) 2 n=2 x=1^2+1=2, i=2
 i=3 n=2+FNP(3) 12 n=14 x=12, i=4
 i=5 exit

10100001.01010101.00001100.00001010
 And 11111111.11111111.11111111.00000000
 10100001.01010101.00001100.00000000

124 { 14 \$50
 15~30 15*3.5=\$52.5
 31~50 20*4.5=\$90
 (124-14-15-20)*6.5=\$487.5
 Total=\$50+\$52.5+\$90+\$487.5=\$680

25 50+(25-14)*3.5=\$88.5
 47 50+15*3.5+(47-14-15)*4.5=\$

Dim Water as short
 Water = val(textbox1.text)
 If Water >=15 And <=30 then

Else if

Else if....

End if

| | |
|-----------------|----------------------|
| <u>i=0 to 2</u> | ↓ |
| 0 | 0(k=0),1(k=1),2(k=3) |
| 1 | 0,1,2 |
| 2 | 0,1,2 |

| | | |
|------------------|-----------------|---------------------|
| <u>i=1 to 10</u> | <u>j=1 to i</u> | <u>k</u> |
| 1 | 1 | 1 |
| 2 | 1,2 | 1, 1 ∨ 2 |
| 3 | 1,2,3 | 1, 1 ∨ 2, 1 ∨ 2 ∨ 3 |