

for 迴圈

- $1+2+3+4$

for 迴圈

- 1+2+3+4
- 語法

```
for ( 1  ; 2  ; 4  )  
{  
  3   
}
```

⁵ following statements

for 迴圈

- 1+2+3+4
- 語法

```
for ( i=1 ;  ;  )  
{  
    
}
```

⑤ following statements

for 迴圈

- 1+2+3+4
- 語法

```
for ( i=1 ; i<=4 ;  )  
{  
    
}
```

⑤ following statements

for 迴圈

- 1+2+3+4
- 語法

```
for ( i=1 ; i<=4 ;  )  
{  
    sum = sum + i;  
}
```

⑤ following statements

for 迴圈

- 1+2+3+4
- 語法

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements

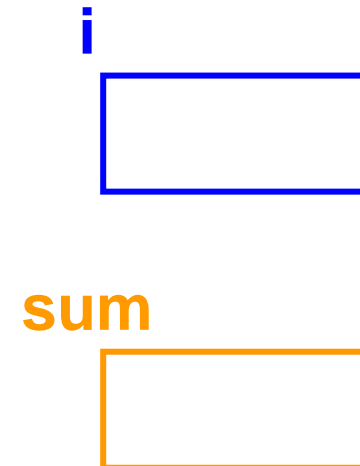
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



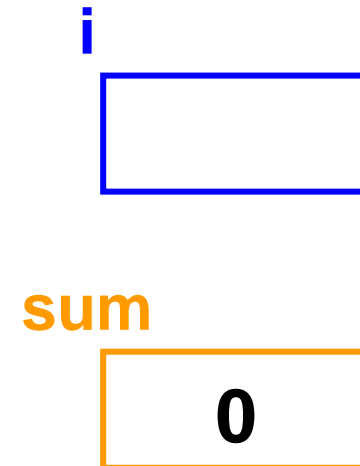
for 迴圈

- 1+2+3+4
- 語法

```
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```

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    sum = sum + i;  
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```

following statements



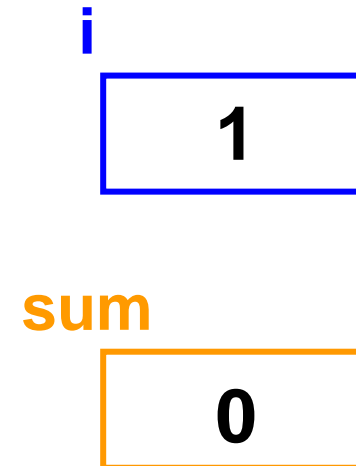
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( 1 i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



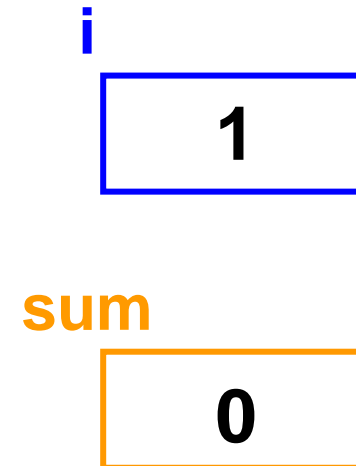
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=42 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



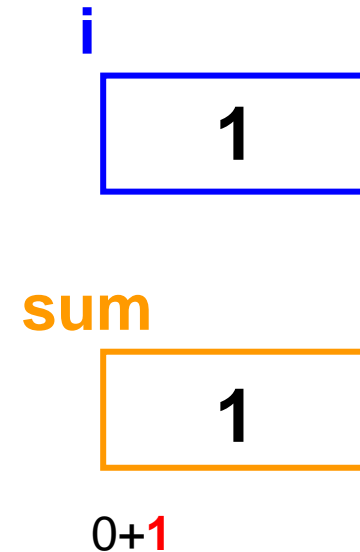
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    ③ sum = sum + i;  
}
```

following statements



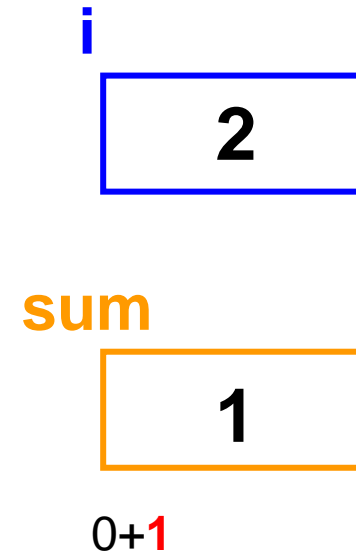
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



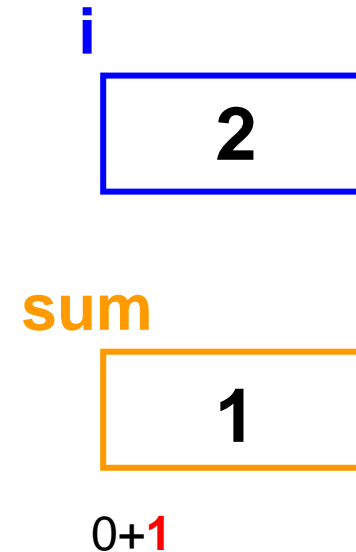
for 迴圈

- 1+2+3+4
- 語法

```
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```

```
for ( i=1 ; i<=42 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



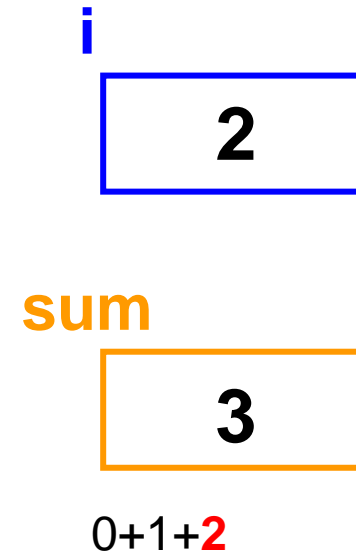
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    ③ sum = sum + i;  
}
```

following statements



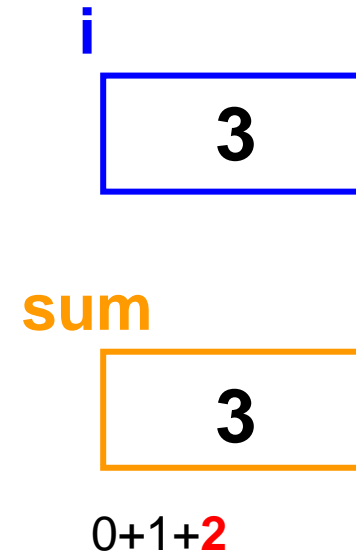
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



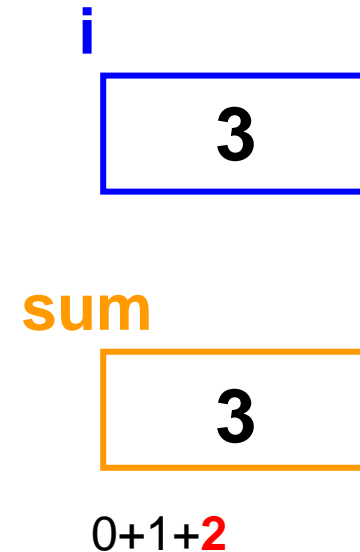
for 迴圈

- 1+2+3+4
- 語法

```
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```

```
for ( i=1 ; i<=42 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



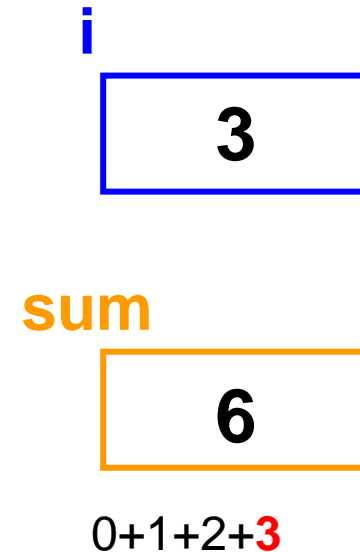
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    ③ sum = sum + i;  
}
```

following statements



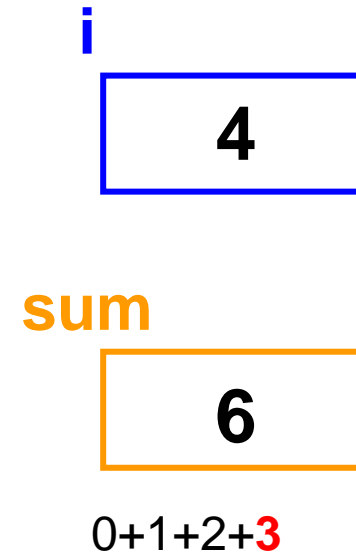
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



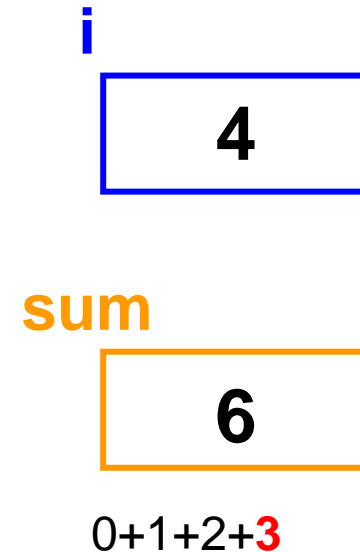
for 迴圈

- 1+2+3+4
- 語法

```
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```

```
for ( i=1 ; i<=42 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



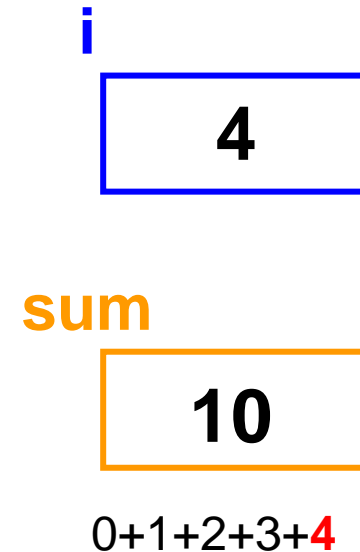
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    ③ sum = sum + i;  
}
```

following statements



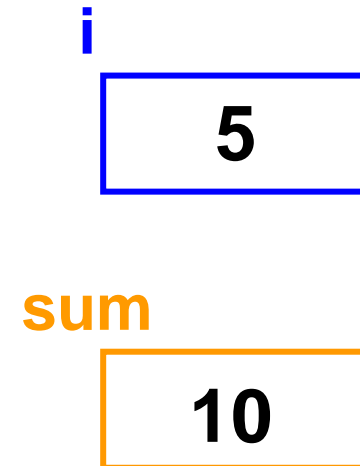
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

following statements



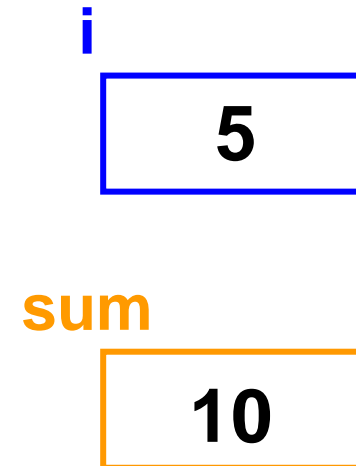
for 迴圈

- 1+2+3+4
- 語法

```
int i, sum=0;
```

```
for ( i=1 ; i<=4 ; i=i+1 )  
{  
    sum = sum + i;  
}
```

⑤ following statements

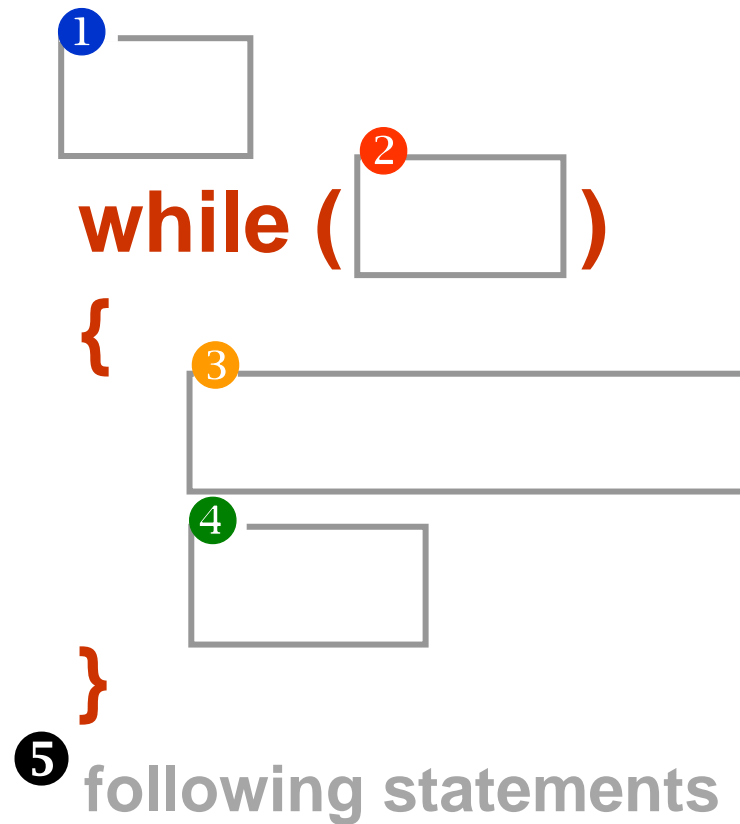


while 迴圈

- $1+2+3+4$

while 迴圈

- 1+2+3+4
- 語法



while 迴圈

- 1+2+3+4
- 語法

```
i=1;  
while ( 2 )  
{  
  3  
  4  
}  
5 following statements
```

while 迴圈

- 1+2+3+4
- 語法

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
  3
```

```
  4
```

```
}
```

5 following statements

while 迴圈

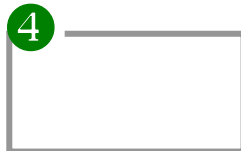
- 1+2+3+4
- 語法

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    sum = sum + i;
```



```
}
```

⑤ following statements

while 迴圈

- 1+2+3+4
- 語法

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum;
```

```
i=1;
```

```
while ( i<=4 )
```

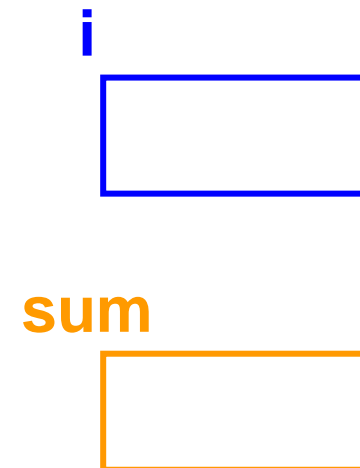
```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements



while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

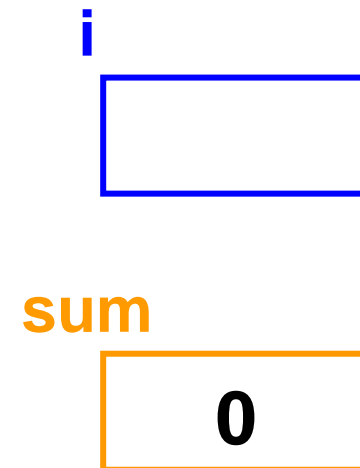
```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements



while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
1  
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
following statements
```

i

1

sum

0

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( 2 i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i

1

sum

0

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```


```
    ③ sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i

A blue-bordered rectangular box containing the number 1, representing the value of variable i.

sum

An orange-bordered rectangular box containing the number 1, representing the value of variable sum.

0+1

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    4  
    i=i+1;
```

```
}
```

following statements

i
2

sum
1

0+1

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( 2 i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i
2

sum
1

0+1

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    ③  
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i
2

sum
3

0+1+2

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    4  
    i=i+1;
```

```
}
```

following statements

i

3

sum

3

0+1+2

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( 2 i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i

3

sum

3

0+1+2

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    ③  
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i
3

sum
6

0+1+2+3

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```


```
    sum = sum + i;
```

```
    4  
    i=i+1;
```

```
}
```

following statements

i

A blue-bordered rectangular box containing the number 4. The label 'i' is positioned above the box.

sum

An orange-bordered rectangular box containing the number 6. The label 'sum' is positioned above the box.

0+1+2+3

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( 2 i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i
4

sum
6

0+1+2+3

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    ③  
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i
4

sum
10

0+1+2+3+4

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

following statements

i

5

sum

10

while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
i=1;
```

```
while ( i<=4 )
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

⑤ following statements

i

5

sum

10

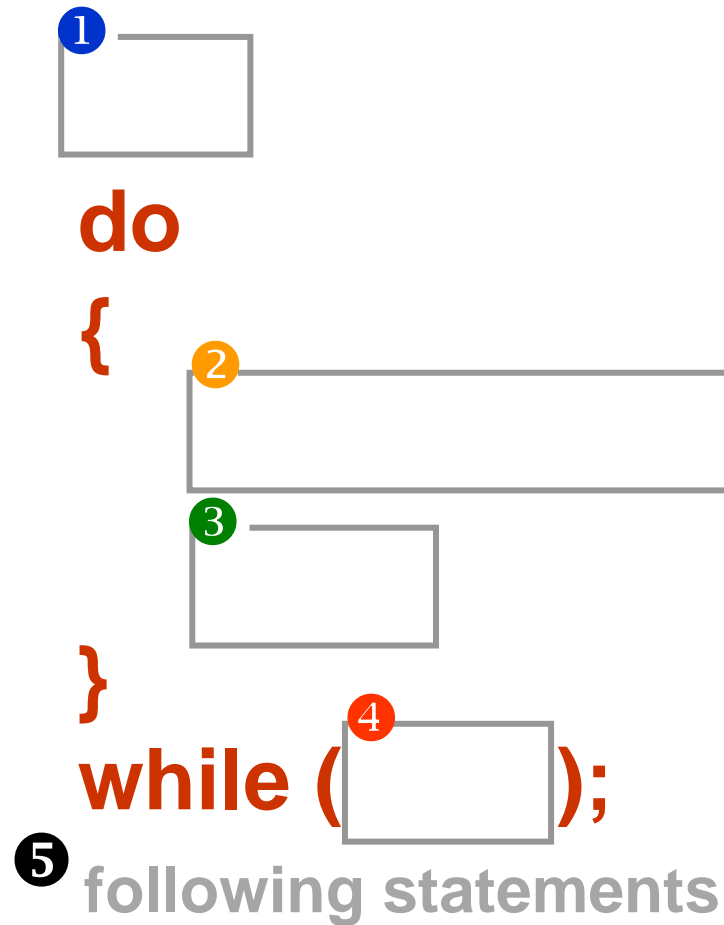
do while 迴圈

- $1+2+3+4$

do while 迴圈

- 1+2+3+4

- 語法



do while 迴圈

- 1+2+3+4

- 語法

`i=1;`

`do`

`{`



`}`

`while ();`

5 following statements

do while 迴圈

- 1+2+3+4

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    3 
```

```
}
```

```
while (4 );
```

5 following statements

do while 迴圈

- $1+2+3+4$

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( 4  );
```

5 following statements

do while 迴圈

- 1+2+3+4

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

do while 迴圈

- 1+2+3+4

```
int i, sum;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

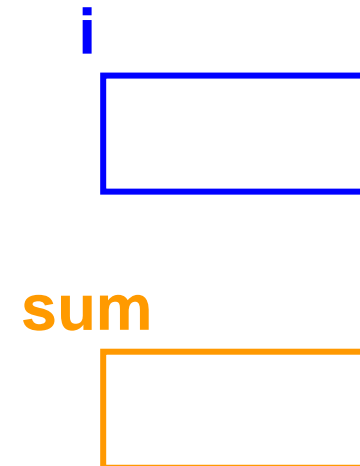
```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```



do while 迴圈

- 1+2+3+4

```
int i, 0sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

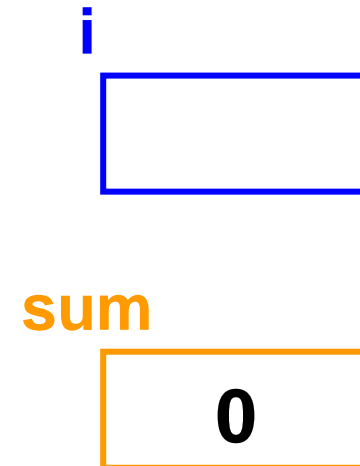
```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```



do while 迴圈

- 1+2+3+4

- 語法

```
int i, sum=0;
```

```
1  
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i

1

sum

0

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

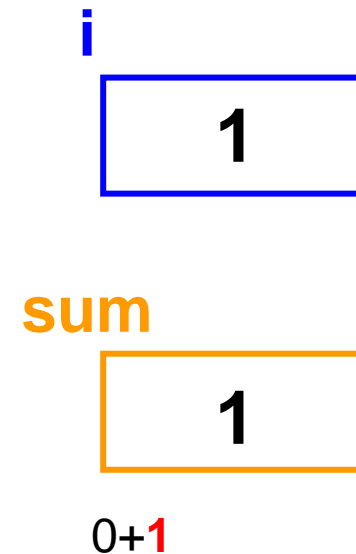
```
    ②  
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```



do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    3  
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i

2

sum

1

0+1

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( 4 i<=4 );
```

```
following statements
```

i

2

sum

1

0+1

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    ②  
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i
2

sum
3

0+1+2

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```


```
    3  
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i

A blue-bordered rectangular box containing the number 3, representing the value of variable i.

sum

An orange-bordered rectangular box containing the number 3, representing the value of variable sum.

0+1+2

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( 4 i<=4 );
```

```
following statements
```

i

3

sum

3

0+1+2

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    ②  
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i

3

sum

6

0+1+2+3

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```


```
    3  
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i



4

sum



6

0+1+2+3

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( 4 i<=4 );
```

```
following statements
```

i

4

sum

6

0+1+2+3

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    ②  
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i

4

sum

10

0+1+2+3+4

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    3  
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

```
following statements
```

i

5

sum

10

do while 迴圈

- 1+2+3+4

```
int i, sum=0;
```

- 語法

```
i=1;
```

```
do
```

```
{
```

```
    sum = sum + i;
```

```
    i=i+1;
```

```
}
```

```
while ( i<=4 );
```

- ⑤ following statements

i

5

sum

10

迴圈語法總結

每一個迴圈都包括

四個部份:

A. 初始

B. 迴圈繼續執行條件

C. 迴圈主體

D. 迴圈控制變數增減

迴圈語法總結

每一個迴圈都包括

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A. 初始

B. 迴圈繼續執行條件

C. 迴圈主體

D. 迴圈控制變數增減

1. for 迴圈

```
for (i=0; i<10; i++)  
{  
    printf("%d", i);  
}
```

迴圈語法總結

每一個迴圈都包括

四個部份:

A. 初始

B. 迴圈繼續執行條件

C. 迴圈主體

D. 迴圈控制變數增減

1. for 迴圈

```
for (i=0; i<10; i++)  
{  
    printf("%d", i);  
}
```

2. while 迴圈

```
i=0;  
while (i<10)  
{  
    printf("%d", i);  
    i++;  
}
```

迴圈語法總結

每一個迴圈都包括

四個部份:

A. 初始

B. 迴圈繼續執行條件

C. 迴圈主體

D. 迴圈控制變數增減

1. for 迴圈

```
for (i=0; i<10; i++)  
{  
    printf("%d", i);  
}
```

2. while 迴圈

```
i=0;  
while (i<10)  
{  
    printf("%d", i);  
    i++;  
}
```

3. do while 迴圈

```
do  
{  
    printf("Input a positive number");  
    scanf("%d", &x);  
}  
while (x<=0);
```