

《C 语言程序设计》阅读程序写结果试题汇总

阅读程序写结果试题

第四章 选择结构 (共 20 道题)

1. (于蕾)

```
#include <stdio.h>

void main( )
{
    int x, y, t;
    x=7;y=9;
    if(x<y)
    { t=x;x=y;y=t;}
    printf("%d,%d\n" , x, y );
}
```

运行结果:

9,7

2. (于蕾)

```
#include <stdio.h>

void main( )
{
    int x=1, a=2, b=3;
    switch(x)
    {
        case 1: a--; break;
```

```
case 2: b++; break;

case 3: a++;b++;

}

printf("\na=%d,b=%d\n", a, b);

}
```

运行结果:

a=1,b=3

3. (于蕾)

```
#include <stdio.h>

void main( )

{

char ch1 = 'E';

if(ch1 >= 'A')

ch1++;

else

ch1+=32;

printf("ch1 = %c\n", ch1);

}
```

运行结果:

ch1= F

4. (于蕾)

```
#include <stdio.h> void main( )

{

int x,y,t;
```

```
x=5;y=3;

if(x>y)

{ t=x;x=y;y=t;}

printf("%d,%d\n" , x,y );

}
```

运行结果:

3,5

5. (王伟)

```
#include <stdio.h> int main()

{

int a,b,c,m;

printf("Enter three integers:");

scanf("%d%d%d",&a,&b,&c);

if(a<=b)

m=a;

else

m=b;

if(c<m)

m=c;

printf("m=%d\n",m);

return 0;

}
```

输入:21 22 23<回车>

运行结果:

m=21

6. (王伟)

```
#include <stdio.h> int main()
{
    char ch1='a',ch2='B',ch3='E';
    if(ch1>ch2)
    if(ch2>ch3)
    ch3++;
    else
    --ch3;
    printf("ch3=%c\n",ch3);
    return 0;
}
```

运行结果:

ch3=D

7. (王伟)

```
#include <stdio.h> int main()
{
    float x,y;
    scanf("%f",&x);
    switch((int)x/10)
    {
    case 0: y=1.0;
    printf("y=%f\n",y);break;
```

```

case 1: y=2*x+1;
printf("y=%f\n",y);break;
case 2: y=3*x*x+2;
printf("y=%f\n",y);break;
default:
printf("No definition.\n");
}
return 0;
}

```

输入:15.3<回车>

运行结果:

y=31.600000

8. (王伟)

```

#include <stdio.h>

int main()
{
char ch1='A',ch2='B';
switch(ch1)
{
case 'A':
switch(ch2)
{
case 'B': printf("Good!\n");break;
case 'A': printf("Better!\n");break;

```

```
}  
  
case 'B': printf("Best!\n"); break;  
  
}  
  
return 0;  
  
}
```

运行结果:

Good!

Best!

9((王锋)

```
#include <stdio.h>  
  
void main()  
{  
  
float score;  
  
score = 100;  
  
if (score<60) printf("E\n");  
else  
switch( ( int ) score / 10 )  
{ case 10:  
  
case 9: printf("A\n");  
case 8: printf("B\n");  
case 7: printf("C\n"); break;  
case 6: printf("D\n"); break;  
default: printf("Error\n");  
}
```

```
}
```

运行结果:

A

B

C

(王锋) 10(

```
#include <stdio.h>
```

```
void main() {
```

```
int i=0, a=2;
```

```
if(i==0)
```

```
printf( "**" );
```

```
else
```

```
printf( "$$" );
```

```
printf( "*" );
```

```
}
```

运行结果:

11. (王锋)

```
#include<stdio.h>
```

```
void main() {
```

```
int m=10, n=0, p=4, q=20;
```

```
if (m)
```

```
if (n)
```

```
q=15-m;
```

```
else
q=25+m;
else if (p)
q=q+p;
printf(“q=%d\n”,q); }
```

运行结果:

q=35

12. (王锋)

```
#include<stdio.h>
void main() {
int a=1,b=0;
switch(a)
{
case 1: switch (b)
{
case 0: printf(“**0**”); break;
case 1:printf(“**1**”);break;
}
case 2: printf(“**2**”);break;
}
}
```

运行结果:

0*2**

13. (宋昕)


```

#include<stdio.h>

int main( )
{
    int a=2,b=7,c=5;
    switch (a>0){
    case 1: switch (b<0){
    case 1: printf("@"); break ;
    case 2: printf("!"); break ;
    }
    case 0: switch (c==5){
    case 1: printf("*") ; break ;
    default : printf("#") ; break ;
    }
    default : printf("&");
    }
    printf("\n");
    return 0;
}

```

运行结果:

*&

14. (宋昕)

```

#include<stdio.h>

int main()
{

```

```

int a=0, b=1, c=0, d=20;

if(a) d=d-10;

else if (!b)

if(!c) d=15;

else d=25;

printf("d=%d\n", d);

return 0;

}

```

运行结果：

d=20

15. (宋昕)

```

#include<stdio.h> int main()

{ int a=1;

switch(a) {

case 0: printf("**0**");break;

case 1:printf("**1**");break;

case 2:printf("**2**");break;

}

return 0;

}

```

运行结果：

1

16. (宋昕)

```

#include <stdio.h> int main()

```

```

{ int x, y;

scanf("%d",&x);

y = x>12 ? x + 10 : x - 12;

printf("%d\n", y);

return 0;

}

```

输入:12<回车>

运行结果:

0

17. (宋昕)

```

#include <stdio.h> int main()

{

float x, y;

char op;

double r;

scanf("%c%f%f",&op,&x,&y);

switch(op)

{ case '+': r = x + y; break;

case '-': r = x - y; break;

case '*': r = x * y; break;

case '/': r = x / y; break;

}

printf("%.1f", r);

return 0;

```

```
}
```

输入:3.5<回车>

运行结果:

0.6

18. (王勇超)

```
#include "stdio.h"
```

```
void main( )
```

```
{
```

```
int a=7;
```

```
if(a>9 || a<10)
```

```
a=a/3;
```

```
else
```

```
a=a%3;
```

```
printf("a=%d", a); }
```

运行结果:

a=2

19. (王勇超)

```
#include<stdio.h>
```

```
void main()
```

```
{
```

```
int a=20;
```

```
switch(a%3)
```

```
{
```

```
case 0: printf("0");
```

```
case 1: printf("1");
case 2: printf("2");
default: printf("3");
}

printf("4");
}
```

运行结果:

234

20. (王勇超)

```
#include <stdio.h>

void main()
{
    int a=2,b=5,c=8,t;
    if ( a < b ) { t = a; a = b; b = t; }
    if ( b < c ) { t = b; b = c; c = t; }
    if ( a < b ) { t = a; a = b; b = t; }
    printf( "%d,%d\n", a++, --c );
}
```

运行结果:

8,1

第五章 循环结构 共 20 道题

1. (于蕾)

```
#include <stdio.h>

void main()
```

```

{
int number , digit;
number = 1234;
while ( number != 0 )
{
digit = number%10 ;
printf( "%d" , digit ) ;
number = number / 10 ;
}
}

```

运行结果:

4321

2. (于蕾)

```

#include <stdio.h>

#define N 5

void main( )
{
int i;
for(i=1;i<N;i++)
printf("%d\n",i*i);
}

```

运行结果:

1

4

9

16

3. (于蕾)

```
#include<stdio.h> void main( )
{
    int i,s,x;
    s=0;
    x=15;
    for(i=1;i<=5;i++)
        if (x%i==0)
            s= s + i;
    printf("i=%d,s=%d\n",i,s);
}
```

运行结果:

i=6,s=9

4. (于蕾)

```
#include <stdio.h> void main()
{
    int counter=1;
    while(counter <= 5)
    {
        printf("%d \n", counter );
        counter++;
    }
}
```

```
}
```

运行结果:

1

2

3

4

5

5((王伟)

```
#include<stdio.h> int main()
```

```
{
```

```
int i, sum, m, a;
```

```
sum=0;
```

```
m=5;
```

```
for(i=0;i<=3;i++)
```

```
{
```

```
scanf("%d",&a);
```

```
if(a>m)
```

```
sum+=a;
```

```
}
```

```
printf("sum=%d\n",sum);
```

```
return 0;
```

```
}
```

输入:2 10 8 3<回车>

运行结果:

sum=18

6. (王伟)

```
#include<stdio.h> int main()
{
    int i, j, k;
    for(i=1; i<=4; i++)
    {
        for (j=1; j<5-i; j++)
            printf(" ");
        for(k=1; k<=i; k++)
            printf("*");
        printf("\n");
    }
    return 0;
}
```

运行结果:

```
*
**
***
****
```

7. (王伟)

```
#include <stdio.h> int main()
{
    int i, j;
```

```

i=1;
while(i<5)
{
for(j=1;j<2*i+1;j++)
printf("%c",'#');
printf("\n");
i++;
}
return 0;
}

```

运行结果：

```

##
####
#####
#####

```

8. (王伟)

```

#include <stdio.h> int main()
{
int i=10,m=0,n=0;
do
{
if(i%2!=0)
m=m+i;
else

```

```
n=n+i;

i--;

}while(i>=0);

printf("m=%d,n=%d\n",m,n);

return 0;

}
```

运行结果:

m=25, n=30

9((王锋)

```
#include <stdio.h>

void main()

{

int sum=0,n;

scanf("%d",&n);

while(n<=5)

{

sum+=n;

n++;

}

printf("sum=%d",sum);

}
```

输入:1<回车>

运行结果:

sum=15

10((王锋)

```
#include <stdio.h> void main()
{
    int i, j;
    for(i=2;i>=0;i--)
    {
        for(j=1;j<=i;j++)
            printf("*");
        for(j=0;j<=2-i;j++)
            printf("!");
        printf("\n");
    }
}
```

运行结果:

**!

*!!

!!!

11((王锋)

```
#include <stdio.h> void main()
{
    int a, b;
    for(a=1, b=1; a<=100; a++)
    {
        if(b>20) break;
```

```

if(b%4==1)

{

b=b+4;

continue;

}

b=b-5;

}

printf("a=%d\n",a); }

```

运行结果：

a=6

12((王锋)

```

#include <stdio.h> void main( )

{

char k;

int i;

for(i=1;i<3;i++)

{

scanf("%c",&k);

switch(k)

{

case '0': printf("another\n");

case '1': printf("number\n");

}

}

}

```

```
}
```

输入:01<回车>

运行结果:

another

number

number

13. (宋昕)

```
#include <stdio.h> int main()
```

```
{
```

```
int i, s = 0;
```

```
for(i = 1; i < 10; i++)
```

```
{
```

```
s += i * i;
```

```
if(s > 10) break;
```

```
}
```

```
printf("i=%d, s=%d\n", i, s);
```

```
return 0;
```

```
}
```

运行结果:

i=3, s=14

14. (宋昕)

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```

char ch;
while((ch=getchar())!='\n')
{
    if (ch>='A' &&ch<='Z')
        ch=ch+32;
    else if (ch>='a' &&ch<='z')
        ch=ch-32;
    printf("%c",ch);
}
}

```

输入:ABCdef<回车>

运行结果:

abcDEF

15. (宋昕)

```

#include <stdio.h>

int main ()
{
    int a, b;

    for (a = 1, b = 1 ; a <= 100 ; a++)
    {
        if (b >= 9) break;
        if (b % 3 == 1)
        {
            b += 3 ;

```

```
continue ;  
}  
  
b -= 5;  
}  
  
printf("%d,%d\n", a, b);  
return 0;  
}
```

运行结果:

4,10

16. (宋昕)

```
#include<stdio.h> int main ()  
{  
  
int i = 0, j = 0;  
while (i < 10) i++;  
while (j++ < 10) ;  
printf("i=%d, j=%d\n", i, j);  
return 0;  
}
```

运行结果:

i=10, j=11

17. (王勇超)

```
#include "stdio.h" void main( )  
{  
  
int i, j, t;
```



```
for(i=1, j=10; i<3; i++, j--)
```

```
t=i+j;
```

```
t++;
```

```
printf("%d, %d", j, t); }
```

运行结果：

8, 12

18. 王勇超)

```
#include "stdio.h" void main()
```

```
{
```

```
int i=10, j;
```

```
do
```

```
{
```

```
j = i%2;
```

```
printf( "%d", j );
```

```
i--;
```

```
} while ( i> 4 );
```

```
}
```

运行结果：

010101

19((王勇超)

```
#include "stdio.h" void main()
```

```
{
```

```
int i=7, j;
```

```
while ( i> 2)
```

```

{
j = i%2;
printf( "%d", j );
i--;
}
printf( "%d", i );
}

```

运行结果：

101012

20. (王勇超)

```

#include <stdio.h> void main()
{
int i, j, t=0;
for(i=3;i>0;i--)
for(j=0;j<4;j++)
t+=j;
printf("t=%d", t); }

```

运行结果：

t=18

第六章 函数 共 40 道题

1. (王伟)

```

#include <stdio.h> long fun(int x,int n);
int main()
{

```

```

int x=3,n=3;

long p;

p=fun(x,n);

printf("p=%ld\n",p);

return 0;

}

long fun(int x,int n) {

int i;

long p=1;

for(i=0;i<n;i++)

p*=x;

return p;

}

```

运行结果:

p=27

2. (王伟)

```

#include <stdio.h> int isDigit(char ch); int main()

{

char ch;

while((ch=getchar())!='\n')

{

if(isDigit(ch))

putchar(ch);

}

```

```

printf("\n");
return 0;
}

int isDigit(char ch) {
    if(ch>='0' && ch<='9')
        return 1;
    else
        return 0;
}

```

输入:Abc1d23eF45g<回车>

运行结果:12345

3. (王伟)

```

#include <stdio.h> void odddivisor(int n);

int main()
{
    int n;
    scanf("%d",&n);
    odddivisor(n);
    return 0;
}

void odddivisor(int n) {
    int i;
    for(i=3;i<=n/2;i=i+2)
        if(n%i==0)

```

```
printf("%5d", i);  
printf("\n");  
}
```

输入:15<回车>

运行结果:

3 5

4. (王伟)

```
#include <stdio.h> void print();  
  
int a=5;  
  
int main()  
{  
  
int a=1,b=2;  
  
a=a+b;  
  
print();  
  
printf("%d %d\n", a, b);  
  
return 0;  
}  
  
void print()  
{  
  
int b=3;  
  
printf("%d %d\n", a, b);  
}
```

运行结果:

5 3

3 2

5. (王伟)

```
#include <stdio.h> int fun1(int x); void fun2(int x); int main()
{
    int x=1;
    x=fun1(x);
    printf("%d\n",x);
    return 0;
}

int fun1(int x) {
    x++;
    fun2(x);
    return x;
}

void fun2(int x) {
    x++;
}
```

运行结果:

2

6. (王伟)

```
#include <stdio.h> int fun1(int a,int b,int c);
int main()
{
    int a=11,b=21,c=31;
```

```
fun1(a, b, c);  
printf("%d %d %d\n", a, b, c);  
return 0;  
}
```

```
int fun1(int a, int b, int c)  
{  
a=a+10;  
b=b+10;  
c=c+10;  
return c;  
}
```

运行结果:

11 21 31

7. (王伟)

```
#include<stdio.h> void fun(int x); int main()  
{  
fun(7);  
printf("\n");  
return 0;  
}  
  
void fun(int x) {  
if(x/2>1)  
fun(x/2);  
printf("%5d", x); }
```

运行结果:

3 7

8. (王伟)

```
#include <stdio.h> void fun(int a[]); int main()
{
    int i, a[5]={1, 2, 3};
    fun(a);
    for(i=0; i<5; i++)
        printf("%5d", a[i]);
    printf("\n");
    return 0;
}

void fun(int a[]) {
    int i;
    for(i=0; i<5; i++)
        a[i]+=5;
}
```

运行结果:

6 7 8 5 5

9. (于蕾)

```
#include <stdio.h>

void fun ( int k ) ; void main ( )
{
    int w = 5 ;
```



```

fun ( w ) ;

printf ( "\n" ) ; }

void fun ( int k ) {

if ( k>0 )

fun ( k-1 ) ;

printf ( "%d" , k ) ;

}

```

运行结果：

012345

10. (于蕾)

```

#include<stdio.h> void f1(void);

int a=1;

void main( )

{

int a=2;

f1();

{

int a=3;

printf("a2=%d\n",a);

}

printf("a3=%d\n",a); }

void f1(void)

{

printf("a1=%d\n",a); }

```

运行结果：

a1=1

a2=3

a3=2

11. (于蕾)

```
#include<stdio.h>

void f(int a, int b, int *c) {
    a=20; b=10;
    *c=a+b; }

void main()
{
    int a=10, b=20, c=30, d=40;
    f(a, b, &c);
    printf("%d, %d, %d\n", a, b, c); }
```

运行结果：

10, 20, 30

12. (于蕾)

```
#include<stdio.h>

void swap(int a, int b); void main()
{
    int a=2, b=3;
    printf("a=%d, b=%d\n", a, b);
    swap(a, b);
    printf("a=%d, b=%d\n", a, b); }
```

```
void swap(int a,int b) {  
    int c;  
    c=a;  
    a=b;  
    b=c;  
}
```

运行结果:

a=2, b=3

a=2, b=3

13. (于蕾)

```
#include <stdio.h>  
  
void fun(int a,int b,int c); void main()  
{  
    int x=10,y=20,z=30;  
    fun(x,y,z);  
    printf("%d,%d,%d\n",x,y,z);  
}  
  
void fun(int a,int b,int c)  
{  
    a=456;b=567;c=678; }
```

运行结果:

10, 20, 30

14. (于蕾)

```
#include <stdio.h> float f(int n)
```

```

{
int i;float s=0.0;
for(i=1;i<n;i++)
s=s+(float)1.0/i;
return s;
}

void main()
{
int i;float a=0.0;
for(i=1;i<3;i++)
a=a+f(i);
printf("a=%.4f\n", a);
}

```

运行结果:

a=1.0000

15. (于蕾)

```

#include <stdio.h> int f(int a);

void main()
{
int a=2,i;
for(i=0;i<3;i++)
printf("%d",f(i)); }

int f(int a)
{

```

```
int b=0, c=3;  
  
b++;  
  
c++;  
  
return(a+b+c); }
```

运行结果:

567

16. (于蕾)

```
#include<stdio.h> int fun();  
  
void main()  
{  
  
int i, x;  
  
for(i=0; i<=2; i++)  
x=fun();  
  
printf("%d\n", x);  
}  
  
int fun()  
{  
  
int x=3;  
  
x++;  
  
return x;  
}
```

运行结果:

4

17. (王锋)

```

#include <stdio.h> float add(float x, float y);

void main( )
{
    float a, b, c;
    a=1.0;
    b=2.0;
    c=add(a, b);
    printf("%f\n", c);
}

float add(float x, float y)
{
    float z;
    z=x+y;
    return(z);
}

```

运行结果：

3.000000

18. (王锋)

```

#include<stdio.h> void fun(int x, int cp, int dp)
{
    cp=x++;
    dp=++x;
}

void main(void) {

```

```
int a,c=80, d=-20;

a=30;

fun(a, c, d) ;

printf("%d,%d\n", c,d);

}
```

运行结果:

80,-20

19. (王锋)

```
#include <stdio.h> int f(int a,int b); void main()

{

int i=2,p;

p=f(i,i+1);

printf("%d\n",p); }

int f(int a,int b) {

int c;

if(a>b)

c=1;

else if (a==b)

c=0;

else

c=-1;

return (c);

}
```

运行结果:

-1

20. (王锋)

```
#include <stdio.h> int fun(int n)
{
    if(n==1) return 1;
    else return fun(n-1)+3;
}

void main()
{
    int i, j=0;
    for(i=1; i<4; i++)
        j=j+fun(i);
    printf("j=%d\n", j); }
```

运行结果: j=12

21. (王锋)

```
#include <stdio.h> void f(int x, int y) {
    int t;
    if(x<y)
        {t=x; x=y; y=t;} }

void main()
{
    int a=4, b=3, c=5;
    f(a, b);
    f(a, c);
}
```



```
f(b, c);  
printf("%d, %d, %d", a, b, c);  
}
```

运行结果:

4, 3, 5

22. (王锋)

```
#include<stdio.h> int age(int n)  
{  
    int c;  
    if(n==1)  
        c=10;  
    else  
        c=age(n-1)+2;  
    return(c);  
}  
  
void main()  
{  
    printf("%d", age(5)); }  

```

运行结果:

18

23. (王锋)

```
#include <stdio.h> void hello_world(void) {  
    printf("Hello, world!\n");  
}
```

```

void three_hellos(void) {
    int counter;
    for (counter =1;counter <= 3;counter++)
        hello_world();
}

void main(void)
{
    three_hellos();
}

```

运行结果:

Hello, world!

Hello, world!

Hello, world!

24. (王锋)

```

#include <stdio.h> int f(int a,int b); void main()
{
    int x,i=1,k=3;
    x=f(i,k);
    printf("x=%d \n",x);
}

int f(int a,int b) {
    int M=0;
    while(b!=0)
    {

```

```
M=M+a;
```

```
b--;
```

```
}
```

```
return M;
```

```
}
```

运行结果:

```
x=3;
```

25. (宋昕)

```
#include<stdio.h> f(int b[ ],int m,int n) {
```

```
int i,s = 0;
```

```
for(i = m;i < n;i++)
```

```
s += b[i];
```

```
return s;
```

```
}
```

```
int main()
```

```
{
```

```
int x,a[ ] = {1,2,3,4,5,6,7,8,9}, *p = a;
```

```
x = f(p,3,7);
```

```
printf("x=%d\n",x);
```

```
return 0;
```

```
}
```

运行结果:

```
x=22
```

26. (宋昕)

```

#include <stdio.h> void fun(int i, int j) {
    int x = 7;
    printf("i = %d; j = %d; x = %d\n", i, j, x);
}

int main()
{
    int i = 2, x = 5, j = 7;
    fun(j, 6);
    printf("i = %d; j = %d; x = %d\n", i, j, x);
    return 0;
}

```

运行结果：

i = 7; j = 6; x = 7

i = 2; j = 7; x = 5

27. (宋昕)

```

#include <stdio.h>
void f(int a[])
{
    int i=0;
    while(a[i]<=10)
    {
        printf("%d",a[i]);
        i++;
    }
}

```

```

}

int main()

{

int a[]={1,7,17,9,11,34};

f(a+1);

}

```

运行结果：

7

28. (宋昕)

```

#include <stdio.h>

void add(int x, int y, int z) {

z = x + y;

x = x * x;

y = y * y;

printf("(2) x = %d y = %d z = %d\n", x, y, z);

}

int main()

{

int x = 2, y = 3, z = 0;

printf("(1) x = %d y = %d z = %d\n", x, y, z);

add(x, y, z);

printf("(3) x = %d y = %d z = %d\n", x, y, z);

return 0;

}

```

运行结果:

(1) $x = 2$ $y = 3$ $z = 0$ (2) $x = 4$ $y = 9$ $z = 5$ (3) $x = 2$ $y = 3$ $z = 0$

29. (宋昕)

```
#include <stdio.h> int x1 = 30, x2 = 40; void sub(int x, int y) {  
    x1 = x;  
    x = y;  
    y = x1;  
}  
  
int main()  
{  
    int x3 = 10, x4 = 20;  
    sub(x3, x4);  
    sub(x2, x1);  
    printf(" %d, %d, %d, %d\n", x3, x4, x1, x2);  
    return 0;  
}
```

运行结果:

10, 20, 40, 40

30. (宋昕)

```
#include<stdio.h> int x;  
  
void cube()  
{  
    x = x * x * x; }  
  
int main()
```

```

{
x = 5;
cube();
printf(" %d\n", x);
return 0;
}

```

运行结果：

125

31. (宋昕)

```

#include <stdio.h>

invert(int *s, int i, int j) {
    int t;
    if(i < j)
    {
        invert(s, i + 1, j - 1);
        t = *(s + i);
        *(s + i) = *(s + j);
        *(s + j) = t;
    }
}

void main( )
{
    int a[6] = {10, 6, 23, -90, 0, 3}, i;
    invert(a, 0, 5);
}

```

```
for(i = 0; i < 6; i++) printf("%d, ", a[i]);  
printf("\n");  
}
```

运行结果:

3, 0, -90, 23, 6, 10

32. (宋昕)

```
int func(int a[][3]) {  
    int i, j, sum=0;  
    for(i=0; i<3; i++)  
        for(j=0; j<3; j++) {  
            a[i][j]=i+j;  
            if(i==j)  
                sum = sum+a[i][j];  
        }  
    return sum;  
}  
  
int main()  
{  
    int a[3][3]={1, 3, 5, 7, 9, 11, 13, 15, 17};  
    int sum;  
    sum=func(a);  
    printf("sum=%d", sum);  
    return 0;  
}
```


运行结果：

sum=6

33. (王勇超)

```
# include <stdio.h>

int i=10;

void fun();

void main( )

{ int i;

for(i=2; i>0; i--)

fun( );

}

void fun()

{

i*=2;

printf("i=%d\n", i); }
```

运行结果：

i=20

i=40

34((王勇超)

```
#include <stdio.h> int fun(int n)

{

if (n<=1)

return 1;

else
```

```

return fun(n-1)*n; }

void main()

{

int i, j=0;

for(i=1; i<=3; i++)

j+=fun(i);

printf("j=%d\n", j); }

```

运行结果：

j=9

35. (王勇超)

```

#include <stdio.h> int funa(int a, int b) {

int t;

if (a > b)

t = a/b;

else

t = a%22;

return t;

}

void main()

{

int a=33, b=22, c;

c=funa(a, b);

printf("c=%d\n", c); }

```

运行结果：

c=1

36. (王勇超)

```
# include <stdio.h> void fun(int i); void main( )
{ int i;
for(i=2; i>0; i--)
fun(i);
}
```

```
void fun(int i) {
i*=2;
printf("%d+", i); }
```

运行结果:+4++2+

37. (王勇超)

```
# include <stdio.h>
void fun(int n); void main( )
{
int x=879;
fun(x);
}

void fun(int n) {
int a,b,c,t;
a = n % 10;
b = (n/10) % 10;
c = (n/100) % 10;
if ( a < b ) { t = a; a = b; b = t; }
```

```
if ( b < c ) { t = b; b = c; c = t; }  
if ( a < b ) { t = a; a = b; b = t; }  
printf( "%d", b );  
}
```

运行结果:8

38. (王勇超)

```
#include <stdio.h> int funa(int a, int b)  
{  
    int t;  
    if (a > b)  
    {  
        t = a;  
        a = b;  
        b = t;  
    }  
    return t;  
}  
  
void main()  
{  
    int a=33, b=22, c;  
    c=funa(a, b);  
    printf("c=%d\n", c); }
```

运行结果:

c=33

39. (王勇超)

```
#include <stdio.h> int swap(int x, int y)
{
    int z;
    z=x%10;
    x=y%10;
    y=z;
    z=x;
    return z;
}

void main()
{
    int a=38, b=29, c;
    c=swap(a, b);
    printf("%d%d\n", a, c);
}
```

运行结果:

389

40. (王勇超)

```
#include <stdio.h> void fun(int n) {
    if(n==1)
        printf("*\n");
    else
    {
```

```

printf("-");

fun(n-1);

}

}

void main()

{

int i, j=0;

for(i=1; i<4; i++)

fun(i);

printf("XiaoXin!"); }

```

运行结果：

```

*

-*

--*

```

XiaoXin!

第七章 数组 共 40 道题

1. (王锋)

```

#include <stdio.h>

void main()

{

int a[2][3]={{3, 2, 7}, {4, 8, 6}};

int i, j, m=0;

for(i=1; i<=1; i++)

for(j=0; j<=i; j++)

```

```
m=m+a[i][j];  
printf("m=%d",m);  
}
```

运行结果:

m=12

2. (王锋)

```
#include <stdio.h>  
  
void main(void) {  
    int array[10] = {1, 2, 4, 5, 6, 0, 0, 0, 0, 0}, i;  
    printf("\n");  
    for (i=0; i<10; i++)  
        printf("%3d ", array[i]);  
    printf("\n");  
    for (i=9; i>=2; i--)  
        array[i] = array[i-1];  
    array[2] = 3;  
    for (i=0; i<10; i++)  
        printf("%3d ", array[i]);  
    printf("\n");  
}
```

运行结果:

1 2 4 5 6 0 0 0 0 0

1 2 3 4 5 6 0 0 0 0

3. (王锋)

```

#include <stdio.h>

void main(void)
{
    char a[]="ABCDEFGH",b[]="abCDefGh";
    char *p1,*p2;
    int k;
    p1=a; p2=b;
    for(k=0;k<=7;k++)
        if (*(p1+k)==*(p2+k))
            printf("%c",*(p1+k));
    printf("\n");
}

```

运行结果:CDG

4. (王锋)

```

#include <stdio.h>
#include <string.h> void main()
{
    char a[30]="Hello ";
    char b[10]="Students";
    char c[10]="Teachers";
    strcat(a,c);
    printf("%s,%s.\n",a,b); }

```

运行结果:

Hello Teachers, Students.

5((王锋)

```
#include <stdio.h>

void inv(int x[],int n); void main()
{
    int i, a[10]={3,7,9,11,0,6,7,5,4,2};
    inv(a, 10);
    printf("The array has been reverted.\n");
    for(i=0;i<10;i++)
        printf("%d, ",a[i]);
    printf("\n");
}

void inv(int x[], int n) {
    int t,i,j,m=(n-1)/2;
    for(i=0;i<=m;i++)
    {
        j=n-1-i;
        t=x[i];
        x[i]=x[j];
        x[j]=t;
    }
}
```

运行结果:

The array has been reverted. 2,4,5,7,6,0,11,9,7,3,

6. (王锋)

```

#include<stdio.h>

void main()

{

float a[3][3]={1,2,3,4,5,6,7,8,9},sum=0;

int i;

printf("please input rectangle element:\n");

for(i=0;i<3;i++)

sum=sum+a[i][i];

printf("duijiaoxian he is %6.2f",sum);

}

```

运行结果:

please input rectangle element: duijiaoxian he is 15.00

7. (宋昕)

```

#include <stdio.h>

int main()

{

int i=1,n=3,j,k=3;

int a[5]={1,4,5};

while(i<=n&&k>a[i]) i++;

for(j=n-1;j>=i;j--)

a[j+1] = a[j];

a[i] = k;

for(i=0;i<=n;i++)

printf( "%2d" ,a[i]);

```

```
return 0;

}
```

运行结果：

1 3 4 5

8. (王锋)

```
#include<stdio.h>

void main()

{

int a[10]={0,1,2,3,4,5,6,7,8,9}, b[10], i, sum=0;

for(i=1;i<10;i++)

{

b[i]=a[i-1]+a[i];

sum=sum+b[i];

}

for(i=1;i<10;i++)

if(i%3==0)

sum=sum+b[i];

printf("sum=%3d", sum); }
```

运行结果：

sum=114

9. (王勇超)

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

int a[5]={2,6,1,3,4}, n=5, i, j, t;

for(i=0, j=1; j<n; j++)
```

```

if(a[i]<a[j])
{
a[j]=a[i];
i++;
}
for(i=0;i<n;i++)
printf("%d",a[i]); }

```

运行结果：

22121

10. (王勇超)

```

#include <stdio.h> void funa(int x[],int n); void main()
{
int i, a[5]={3,7,9,11,0};
funa(a, 5);
for(i=0;i<5;i++)
printf( "%d, ",a[i]);
printf( "\n" );
}

void funa(int x[], int n) {
int t,i,j,m=(n-1)/2;
for(i=0;i<=m;i++)
{
j=n-1-i;
t=x[i];

```

```
x[i]=x[j];
```

```
x[j]=t;
```

```
}
```

```
}
```

运行结果：

0, 11, 9, 7, 3,

王勇超) 11. (

```
#include <stdio.h> void main() {  
    int a[5]={24, 15, 33, 64, 45}, n=5, i, j, t;  
    for(i=0; i<n; i++)  
        a[i]=a[i]%10;  
    for(i=n; i>0; i--)  
        printf("%d, ", a[i-1]); }
```

运行结果：

5, 4, 3, 5, 4,

12. (王勇超)

```
#include <stdio.h> void main() {  
    int a[5], i, j, t;  
    for(i=4; i>=0; i--)  
        scanf("%d", &a[i]);  
    for(i=0; i<5; i++)  
        a[i]=a[i]+10;  
    for(i=0; i<5; i++)  
        printf("%d, ", a[i]); }
```

输入:42 31 24 15 16<回车>

运行结果:

26, 25, 34, 41, 52

13. (王勇超)

```
#include<stdio.h> main()  
{  
char a[][5]={"Zhong", "Gong", "ren"};  
printf("%s\n%s\n", a[0], a[1]);  
}
```

~~运行结果:~~

~~ZhongGong~~

~~Gong~~

14. (王勇超)

```
#include <stdio.h> void main() {  
int a[3][3]={0, 1, 2, 3, 4, 5, 6, 7, 8}, i, j, t;  
for(i=0; i<3; i++)  
for(j=0; j<3; j++)  
a[i][j]+=a[i][0];  
for(i=0; i<3; i++)  
printf("%d, ", a[i][i]); }
```

运行结果:

0, 10, 20

15. (王勇超)

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

```

int a[3][3]={1,2,3,4,5,6,7,8,9}, i, j;
for(i=0;i<3;i++)
for(j=0;j<3;j++)
a[i][j]+=a[i][2];
while(i>0)
{
i--;
printf("%d, ",a[i][i]);
}
}

```

运行结果：

18, 11, 4

16. (王勇超)

```

#include<stdio.h> void main()
{
int i, j;
char a[10]={"ABCDEFGHJIJ"};
for(i=0;i<10;i++)
a[i]=a[i]+3;
printf("%c\n", a[6]); }

```

运行结果：

J

17. (王伟)

```

#include<stdio.h> int main()

```

```

{
int i, a[10]={0, 1, 2, 3, 4, 5, 6, 7};
for(i=1; i<9; i++)
a[i]=a[i-1]+a[i+1];
printf("%d%d\n", a[5], a[8]);
return 0;
}

```

运行结果：

2027

18. (王伟)

```

#include<stdio.h> int main()
{
int i, a[]={1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
for(i=0; i<5; i++)
a[i]=i+2;
for(i=9; i>=0; i--)
if(a[i]%3==0)
printf("%d\n", a[i]);
return 0;
}

```

运行结果：

9

6

6

3

19. (王伟)

```
#include<stdio.h> int main()
{
    int num=13, len=0, i=0, a[30];
    do
    {
        a[len]=num%2;
        num=num/2;
        len++;
    }while(num);
    for(i=0; i<len; i++)
        printf("%d", a[len-i-1]);
    printf("\n");
    return 0;
}
```

运行结果:

1101

20. (王伟)

```
#include <stdio.h> int main()
{
    int a[5]={6, 9, 12, 16};
    int x, i=3;
    scanf("%d", &x);
```

```

while(i>=0 && x<a[i])
{
a[i+1]=a[i];
i--;
}
a[i+1]=x;
for(i=0;i<5;i++)
printf("%5d",a[i]);
printf("\n");
return 0;
}

```

输入:10<回车>

运行结果:

6 9 10 12 16

21. (王伟)

```

#include<stdio.h> int main()
{
int a[3][3]={ {2,3}, {4,5,6}, {7,8} };
int i=0, j=0, m;
m=a[0][0];
for(i=0;i<3;i++)
for(j=0;j<3;j++)
if(a[i][j]<m)
m=a[i][j];

```

```
printf("m=%d\n",m);  
return 0;  
}
```

运行结果:

m=0

22. (王伟)

```
#include <stdio.h> #include <string.h> int main()  
{  
    int i;  
    char str[20]="abcdef";  
    strcpy(str,"opqrst");  
    str[5]='\0';  
    for(i=0;i<strlen(str)-1;i++)  
        putchar(str[i]);  
    printf("\n");  
    return 0;  
}
```

运行结果:

opqr

23. (王伟)

```
#include <stdio.h> #include <string.h> int main()  
{  
    char a[10]="AB",b[10]="LMNP";  
    int i=0;
```

```

while(b[i])
{
a[i]=b[i];
i++;
}
a[i]='\0';
puts(b);
return 0;
}

```

运行结果:

LMNP

24. (王伟)

```

#include <stdio.h> #include <string.h> int main()
{
int i;
char str1[30]="abc",str2[3][5]={"defg","hi\0j","klm"};
for(i=1;i<3;i++)
strcat(str1,str2[i]);
puts(str1);
return 0;
}

```

运行结果:

abchiklm

25. (宋昕)

```

#include<stdio.h>

int main()
{
    int i;
    char a[] = "Time", b[] = "Tom";
    for(i = 0; a[i] != '\0' && b[i] != '\0'; i++) {
        if (a[i] == b[i])
            if (a[i] >= 'a' && a[i] <= 'z')
                printf("%c", a[i] - 32);
            else
                printf("%c", a[i] + 32);
            else printf("*");
        }
    return 0;
}

```

运行结果:t*M

26. (宋昕)

```

#include <stdio.h>

int main()
{
    char a[4][10] = {"1234", "abcd", "xyz", "ijklm"};
    int i = 3;
    char (*p)[10] = a;
    printf("output string: \n");
}

```

```

for (p = a; p < a + 4; p++, i--)
printf("%c", *(p + i));

return 0;

}

```

运行结果:4cyi

27. (宋昕)

```

#include <stdio.h>

#include<string.h>

int main()

{

char str1[30], str2[] = "your book" ;

scanf( "%s" , str1);

strcpy(str1, str2);

printf( "\n %s\n %d\n" , str1, strlen(str2));

return 0;

}

```

输入:you are a student<回车>

运行结果:

your book

9

28. (宋昕)

```

#include<stdio.h> #include<string.h> int main()

{ char s1[10]= "java" , s2[10]= "basic" , s[10];

if(strcmp(s1,s2)) { strcpy(s,s1); puts(s);}

```

```
printf( "%d,%s\n" , strlen(s2), strcat(s2,s1));  
return 0;  
}
```

运行结果:

java

9,basicjava

29. (宋昕)

```
#include <stdio.h> #include <string.h> int main ()  
{  
char *p = "abcdefgh" , c[10] = { "XYZ" } ;  
p += 3 ;  
puts ( strcat ( c , p ) ) ;  
printf ( "%d\n" , strlen ( c ) ) ;  
return 0;  
}
```

运行结果:

XYZdefgh

8

30. (宋昕)

```
#include <stdio.h> int main()  
{  
int a[6][6], i, j;  
for(i=1;i<6;i++)  
for(j=1;j<6;j++)
```

```

a[i][j] = (i/j)*(j/i);
for(i=1;i<6;i++)
{
for(j=1;j<6;j++)
printf("%2d",a[i][j]);
printf("\n");
}
return 0;
}

```

运行结果:

```

1 0 0 0 0
0 1 0 0 0
0 0 1 0 0
0 0 0 1 0
0 0 0 0 1

```

31. (宋昕)

```

#include <stdio.h> int main()
{
int i, f[10];
f[0]= f[1] = 1;
for(i=2;i<10;i++)
f[i] = f[i-2] + f[i-1];
for(i=0;i<10;i++) {
if(i%4 == 0) printf("\n");

```



```
printf("%3d",f[i]);  
}  
  
return 0;  
}
```

运行结果:

```
1 1 2 3  
5 8 13 21
```

32. (宋昕)

```
#include <stdio.h> #include <string.h> int main()  
{  
  
char a[]="morming", t;  
  
int i, j=0;  
  
for(i=1;i<7;i++)  
if(a[j]<a[i]) j = i;  
  
t = a[j];  
  
a[j] = a[7];  
  
a[7] = a[j];  
  
puts(a);  
  
return 0;  
}
```

运行结果:

```
mo
```

33. (于蕾)

```
#include <stdio.h> #include <string.h> void main()
```

```

{
char s[12]= "abcdef" ;
scanf( "%s" ,s);
strcat(s, " xyz" );
printf( "%s\n" ,s);
}

```

运行结果：

hi jxyz

34. (于蕾)

```

#include <stdio.h> void main()
{
int a[3][3]={ {3,4}, {5,6}, {7,8} };
int i, j, t=0;
for(i=1; i<3; i++)
for(j=0; j<i; j++)
t=t+a[i][j];
printf( "t=%d\n" ,t);
}

```

运行结果：

t=20

35. (于蕾)

```

#include <stdio.h> void main( )
{
int i, t, a[5]={1, 2, 3, 4, 5};

```

```

t=a[0];
for(i=1;i<5;i++)
a[i-1]=a[i];
a[4]=t;
for(i=0;i<5;i++)
printf("%d",a[i]);
printf("\n");
}

```

运行结果:

23451

36. (于蕾)

```

#include <stdio.h>

void mystrcpy( char s1[ ] , char s2[ ] );

void main( )
{
char a[50]="I am a teacher.";
char b[]="You are a student.";
printf( " a = %s \n" , a );
mystrcpy( a , b );
printf( " a = %s \n" , a ); }

void mystrcpy( char s1[ ] , char s2[ ])
{
int i = 0 ;
while( s2[i] != '\0' )

```

```

{
s1[i] = s2[i];

i++;
}

s1[i] = '\0' ;
}

```

运行结果：

a= I am a teacher.

a= You are a student.

37. (于蕾)

```

#include <stdio.h>

void main()

{

int i, j, k=0, a[3][3]={1, 2, 3, 4, 5, 6};

for(i=0; i<3; i++)

for(j=i; j<3; j++) k=k+a[i][j];

printf( “?~%d” ?\, k);

}

```

运行结果：

17

38. (于蕾)

```

#include<stdio.h> void main()

{

int i, j=3, a[ ]={1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

```

```
for(i=0;i<5;i++)  
a[i]=i*(i+1);  
for(i=0;i<4;i++)  
j+=a[i]*3;  
printf("%d\n",j); }
```

运行结果:

63

39. (于蕾)

```
#include <stdio.h> void main()  
{  
char c, string[81]= "How are you?";  
int i, n=0, k=0;  
for(i=0; c=string[i]; i++)  
{  
if(c==' ') k=0;  
else if(k == 0)  
{  
k = 1;  
n ++;  
}  
}  
printf("%d\n", n ); }
```

运行结果:

3

40. (于蕾)

```
#include<stdio.h> #include<string.h>

void main( )

{

char s[16]= “12345\0\t\t\t” ;

printf( “%d,%d\n”,strlen(s),sizeof(s));

}
```

运行结果:

5,16

第八章 结构体 出 20 道题

1. (王伟)

```
#include <stdio.h> struct stri_type {

char ch1;

char ch2;

struct

{

int a;

int b;

}ins;

};

int main()

{

struct stri_type ci;

ci.ch1='a' ; ci.ch2='A' ;
```

```

ci.ins.a=ci.ch1+ci.ch2;

ci.ins.b=ci.ins.a-ci.ch1;

printf("%d,%c\n",ci.ins.a,ci.ins.b);

return 0;

}

```

运行结果:

162,A

2. (王伟)

```

#include <stdio.h> struct stud_type {

char num[11];

char name[11];

float score[3];

float average; };

int main()

{

struct stud_type stu={"200601","wang",80.0,85.0,70.0};

stu.average=(stu.score[0]+stu.score[1]+stu.score[2])/3;

printf("average=%5.2f\n",stu.average);

return 0;

}

```

运行结果:

average=78.33

3. (王伟)

```

#include <stdio.h> union out

```

```
{
int a[2];

struct
{
int b;
int c;
} in;
int d;
};

int main()
{
union out e;
int i;
e.in.b=1;
e.in.c=2;
e.d=3;
for(i=0;i<2;i++)
printf("%5d", e.a[i]);
printf("\n");
return 0;
}
```

运行结果:

3 2

4. (王伟)


```

#include <stdio.h>

#define PI 3.14 struct cir_type {

float r;

double area;

};

int main()

{

struct cir_type cir={5.0},*p=&cir;

p->area=PI*p->r*p->r;

printf("area=%.3lf\n",p->area);

return 0;

}

```

运行结果:

```
area=78.500
```

5. (王锋)

```

#include<stdio.h> struct int_char {

int i;

char ch;

};

int main()

{

struct int_char x={9,'z'};

printf("%d\t%5c\n",x.i+20,x.ch-2);

return 0;

```

```
}
```

运行结果:

29 x

6. (王锋)

```
#include<stdio.h> int main()
{
    struct data
    {
        int m;
        int n;
        union
        {
            int y;
            int z;
        }da;
    };

    struct data intdata;

    intdata.m=3;intdata.n=6;

    intdata.da.y=intdata.m+intdata.n;

    intdata.da.z=intdata.m-intdata.n;

    printf("%5d%5d\n", intdata.da.y, intdata.da.z);

    return 0;
}
```

运行结果:

-3 -3

7. (王锋)

```
#include<stdio.h>

int main()
{
    int i;

    float sum_average=0;

    struct student
    {
        int num;
        char name[10];
        int score[2];
        float average;
    };

    struct student data[2]={1, "zhangsan", 60, 70}, {2, "Lisi", 89, 90}};

    for(i=0; i<2; i++)
    {
        data[i].average=(data[i].score[0]+data[i].score[1])/2.0;
        sum_average=sum_average+data[i].average;
    }

    sum_average=sum_average/2;

    for(i=0; i<2; i++)

        if(sum_average>data[i].average)

            printf("%5d%10s%5.2f", data[i].num, data[i].name, data[i].average);
```

```
}
```

运行结果:

1 zhangsan65.00

8. (王锋)

```
#include<stdio.h> struct int_data { int d1,d2;}; int main()
{
    struct int_data data[2]={ {2,3}, {5,6}};
    int i;
    int sum=10;
    for(i=0;i<2;i++)
    {
        scanf("%d%d",&data[i].d1,&data[i].d2);
        sum=data[i].d1+data[i].d2+sum;
    }
    printf("sum=%d \n",sum);
    return 0;
}
```

输入:20 30 40 50<回车>

运行结果:

sum=150

9. (王勇超)

```
#include<stdio.h> int main( )
{
    union exa
```

```

{
struct
{
int a;
int b;
}out;
int c;
int d;
}e;
e.out.a=10;
e.out.b=20;
e.c=2;
e.d=5;
printf("%d,%d\n", e.out.a, e.out.b);
return 0;
}

```

运行结果：

5, 20

王勇超) 10. (

#include<stdio.h>

struct st {

int a;

int b;

union

```

{
    int e;
    int f;
}c;

};

int main( ) {
    struct st y;
    y.a=10;
    y.c.e=20;
    y.c.f=y.a;
    y.b=y.c.e;
    printf("%d,%d\n", y.c.e, y.c.f);
    return 0; }

```

运行结果:

10,10

11. (王勇超)

```

#include<stdio.h>

struct sta {
    int a;
    char b;
};

struct stb {
    int a;
    char b;
};

```

```

struct sta c;

};

int main( ) {

struct stb y;

y.a=10;

y.b='X' ;

y.c.a=y.a*2;

y.c.b=y.b--;

printf("%d,%c\n", y.c.a, y.c.b);

return 0;

}

```

运行结果：

20, X

12. (王勇超)

```
#include<stdio.h>
```

```
union st
```

```
{
```

```
int a[2];
```

```
int b[2];
```

```
int c;
```

```
};
```

```
int main( ) {
```

```
union st y;
```

```
y.a[0]=10;
```

```
y.b[1]=20;

y.c=30;

printf("%d,%d\n",y.a[0],y.a[1]);

return 0;

}
```

运行结果:

30,20

13. (于蕾)

```
#include<stdio.h>

struct two

{

int n;

char ch;

};

void main( )

{

struct two ex1={5,'t'};

printf("%d,%c\n",ex1.n+10,ex1.ch-1);

}
```

运行结果:

15,s

14. (于蕾)

```
#include<stdio.h> struct two

{
```



```

int n;

char ch;

};

void func(struct two ex2);

void main()

{

struct two ex1={6,'v'};

func(ex1);

printf("%d,%c\n",ex1.n,ex1.ch);

getchar();

}

void func(struct two ex2)

{

ex2.n= ex2.n +20;

ex2.ch= ex2.ch -1; }

```

运行结果：

6,v

15. (于蕾)

```

#include <stdio.h> union exa{

struct{

int a;

int b;

}out;

int c;

```

```

int d;

};

void main()

{

union exa e;

e.c=1;

e.d=3;

e.out.a=e.c;

e.out.b=e.d;

printf("%d,%d\n", e.out.a, e.out.b);

}

```

运行结果:

3,3

16. (于蕾)

```

#include <stdio.h> struct stu

{

int a;

int b;

struct poi

{

int x;

int y;

}ins;

};

```

```

void main()
{
    struct stu outs;
    outs.a=11;
    outs.b=4;
    outs.ins.x=outs.a+outs.b;
    outs.ins.y=outs.a-outs.b;
    printf("%d,%d", outs.ins.x, outs.ins.y);
}

```

运行结果:

15,7

17. (宋昕)

```

#include<stdio.h> struct abc
{
    int a, b, c; };
int main()
{
    struct abc s[2] = {{1,2,3},{4,5,6}};
    int t;
    t = s[0].a + s[1].c;
    printf("t=%d \n",t);
    return 0;
}

```

运行结果:

t=7

18. (宋昕)

```
#include <stdio.h>

struct st
{
    int x, y;
} data[2] = {1, 10, 2, 20}; int main()
{
    struct st *p = data ;
    printf("%d\n", p->y ) ;
    printf("%d\n", (++p)->x ) ;
    return 0 ;
}
```

运行结果:

10

2

19. (宋昕)

```
struct n
{
    int x;
    char c;
};

void func(struct n b) {
    b.x = 20;
```

```

b.c = 'y';
}

int main()
{
    struct n a = {10, 'x'};
    func(a);
    printf("%d,%c", a.x, a.c);
    return 0;
}

```

运行结果:

10,x

20. (宋昕)

```

int main()
{
    struct EXAMPLE
    {
        struct
        {
            int x;
            int y;
        } in;
        int a;
        int b;
    } e;
}

```

```
e.a = 1;

e.b = 2;

e.in.x = e.a * e.b;

e.in.y = e.a + e.b;

printf("%d,%d", e.in.x, e.in.y);

return 0;

}
```

运行结果:

2,3

第九章 指针 共 20 道题

1. (王伟)

```
#include <stdio.h>

int main()

{

    int i=0, a[5]={11, 12, 13}, *q;

    for(q=a; q<a+5; q++, i++)

    {

        *q+=5;

        printf("%5d", a[i]);

    }

    printf("\n");

}
```

```
return 0;
```

```
}
```

运行结果:

16 17 18 5 5

2. (王伟)

```
#include<stdio.h> void fun(int *p); int main()
```

```
{
```

```
int a[5]={1,2,3,4,5},*r=a;
```

```
fun(r);
```

```
printf("%d\n",*r);
```

```
return 0;
```

```
}
```

```
void fun(int *p) {
```

```
p=p+2;
```

```
printf("%d\n",*p); }
```

运行结果:

3

1

3. (王伟)

```
#include <stdio.h> int main()
```

```
{
```

```
int a[3][3]={0,1,2,3,4,5,6,7,8};
```

```
int *p, (*q)[3];
```

```
int i=0;
```

```

for(q=a;q<a+3;q++, i++)
{
for(p=*q;p<=*q+i;p++)
printf("%5d", *p);
printf("\n");
}

return 0;
}

```

运行结果:

```

0
3 4
6 7 8

```

4. (王伟)

```

#include <stdio.h> #include <string.h> int main()
{
char str[20]="I am a student.", *p=str;
char *q="You are a teacher.";
p=p+7;
q=q+10;
strcpy(p, q);
puts(str);
return 0;
}

```

运行结果:

I am a teacher.

5. (王锋)

```
#include <stdio.h> void swap(int x, int y)
{
    int z;
    z=x;
    x=y;
    y=z;
}

void pswap(int *x, int *y)
{
    int z;
    z=*x;
    *x=*y;
    *y=z;
}

void main()
{
    int a=3, b=2;
    printf("first:a=%d, b=%d \n", a, b);
    swap(a, b);
    printf("second:a=%d, b=%d\n", a, b);
    pswap(&a, &b);
    printf("third:a=%d, b=%d", a, b); }
```

运行结果:

first:a=3, b=2

second:a=3,b=2

third:a=2,b=3

6. (王锋)

```
#include <stdio.h>
```

```
void f(int a, int b, int *c, int *d)
```

```
{
```

```
a=30; b=40;
```

```
*c=a+b;
```

```
*d=*d-a;
```

```
}
```

```
void main()
```

```
{
```

```
int a=10,b=20,c=30,d=40;
```

```
f(a,b,&c,&d);
```

```
printf("%d,%d,%d,%d",a,b,c,d); }
```

运行结果:

10,20,70,10

7. (王锋)

```
#include <stdio.h>
```

```
void ast(int *cp, int *dp) {
```

```
int x=4,y=3;
```

```
*cp=++x+y;
```

```
*dp=x-y;
```

```
}
```

```
void main()
```

```
{
```

```
int c, d;
```

```
ast(&c, &d);
```

```
printf("%d\n%d\n", c, d); }
```

运行结果:

8

2

8. (王锋)

```
#include<stdio.h> void main()
```

```
{
```

```
char s[]="ABCD", *p;
```

```
for(p=s+1;p<s+4;p++)
```

```
printf("%s\n", p); }
```

运行结果:

BCD

CD

D

9. (于蕾)

```
#include<stdio.h> void main()
```

```
{
```

```
char *p="I am a student.";
```

```
p=p+3;

printf("%s",p); }
```

运行结果:

m a student.

10. (于蕾)

```
#include <stdio.h> void main( )

{

char *p="This is a programe.";

p=p+10;

printf("%s",p); }
```

运行结果:

programe.

11. (于蕾)

```
#include <stdio.h> void add(int *p, int n) {

int *pend = p + n;

for( ; p<pend; p++)

*p += 10;

}

void main( )

{

int a[5]={1,2,3,4,5}, *q = a;

add(q, 5);

for(q=a; q < a+5; q++)

printf("%4d", *q); }
```

运行结果:

11 12 13 14 15

12. (于蕾)

```
#include <stdio.h> int f(int x,int *y); void main()
{
    int a,b,c;
    a=3;
    b=5;
    c=f(a,&b);
    printf("%d,%d,%d\n",a,b,c);
}

int f(int x,int *y) {
    int a=2;
    x=x+a;
    *y=x+a;
    return(a);
}
```

运行结果:

3,7,2

13. (宋昕)

```
#include <stdio.h> void fun (int x , int *y );

int main()
{
    int a = 2 , b = 3 , *c = &b;
```

```

fun(a, c);

printf("a=%d, b=%d, c=%d\n", a, b, *c);

return 0;

}

void fun( int x , int *y ) {

int a = 4;

*y = x + a;

x = *y;

}

```

运行结果:

a=2, b=6, c=6

14. (宋昕)

```

#include <stdio.h>

void sub(int x, int y, int *z) {

*z = y - x;

}

int main()

{

int a, b, c;

sub(10, 5, &a);

sub(7, a, &b);

sub(a, b, &c);

printf(" % 4d, % 4d, % 4d\n", a, b, c);

return 0;

```

```
}
```

运行结果:

-5, -12, -7

15. (宋昕)

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
char a[] = "language", *p;
```

```
p = a;
```

```
while (*p != 'u')
```

```
{
```

```
printf(" % c", *p - 32);
```

```
p++;
```

```
}
```

```
return 0;
```

```
}
```

运行结果:

L A N G

16. (宋昕)

```
#include <stdio.h> int stre(char str[]) {
```

```
int num = 0;
```

```
while(*(str + num) != '\0')
```

```
num++;
```

```
return num; }
```

```

int main()
{
char str[10], *p = str;
gets(p);
printf(" %d\n", stre(p));
return 0;
}

```

输入:happy<回车>

运行结果:

5

17. (王勇超)

```

#include<stdio.h> void f(int x, int *y) {
x=x%10;
*y=*y/10+x;
}

```

```

int main()
{
int a=88,b=99,*c;
c=&b;
f(a,c);
printf("%d,%d\n",a,b);
return 0;
}

```

运行结果:

88,17

18. (王勇超)

```
#include<stdio.h> void main()
{
char a[][7]={ "Teacher","Tom" , "Good"};
char *p=a[0];
p=p+3;
printf("%s\n%s\n", a[0],p);
}
```

运行结果:

TeacherTom

cherTom

19. (王勇超)

```
#include<stdio.h> void main()
{
char a[][7]={ "Teacher","Tom" , "Good"};
char (*p)[7]=a;
printf("%s\n%s\n", a[0],++p);
}
```

运行结果:

TeacherTom

Tom

20. (王勇超)

```
#include <stdio.h> void ast(int x, int y, int *a, int *b)
```

```
{  
  
*a=x+y;  
  
*b=*a-y;  
  
}  
  
void main()  
  
{  
  
int a, b, c, d;  
  
a=10;  
  
b=20;  
  
ast(a, b, &c, &d);  
  
printf("%d,%d\n", c, d); }
```

运行结果:

30,10