

Programmation en C

Corrigé TD1

22 septembre 2010

```
1
2 /* Mon premier programme en C
3 ----- */
4
5 #include <stdio.h>
6
7 int main ()
8 {
9     printf("Hello World !!\n");
10    return 0;
11 }

1 /* Jouer avec printf
2 ----- */
3
4 #include <stdio.h>
5 #include <stdlib.h>
6
7 int main(){
8     int k = 250;
9
10    while (k>=-20) {
11        printf("%3d F -> %6.2f C\n",k,(5.0)/9*k-160/9);
12        /* remplacer le %.2f par %.6f */
13        k-=10;
14    }
15    printf("\n");
16
17    return EXIT_SUCCESS;
18 }

1 /* Tri de 3 éléments
2 ----- */
3
4 #include <stdlib.h>
```

```

5 #include <stdio.h>
6
7 int main ()
8 {
9     int A = 20;
10    int B = 13;
11    int C = 17;
12
13    if (A<B) {
14        if (C<A) printf("%d %d %d\n",C,A,B);
15        else
16            if (C<B) printf("%d %d %d\n",A,C,B);
17            else printf("%d %d %d\n",A,B,C);
18    }
19    else { /* n1 >= n2 */
20        if (C<B) printf("%d %d %d\n",C,B,A);
21        else
22            if (C<A) printf("%d %d %d\n",B,C,A);
23            else printf("%d %d %d\n",B,A,C);
24    }
25
26    return EXIT_SUCCESS;
27 }

```

```

1  /* TRIANGLE
2  ----- */
3
4  #include <stdio.h>
5
6  int main(){
7
8      int n=8;
9      int nbespace=n-1;
10     int nbetoile=1;
11     int j;
12
13     printf("\n");
14
15     while(n >= 1){
16         j=nbespace;
17
18         while(j>=1){
19             printf(" ");
20             j=j-1;
21         }
22

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23     j=nbetoile;
24     while(j>=1){
25         printf("*");
26         j=j-1;
27     }
28
29     printf("\n");
30
31     nbespace = nbespace-1;
32     nbetoile = nbetoile+2;
33     n=n-1;
34 }
35
36
37 return 1;
38 }

1 /* CARRES
2  ----- */
3
4 #include <stdio.h>
5 #include <math.h>
6
7 #define N 10
8
9 int main(){
10
11     int a=1, b=1, c;
12     float d;
13
14     while(a<=N){
15         b=1;
16         while(b<a){
17             d=a*a+b*b;
18             c=2;
19             while(c<=d){
20                 if (c*c==d) printf("%d^2+%d^2=%d^2\n",a,b,c);
21                 c=c+1;
22             }
23             b=b+1;
24         }
25         a=a+1;
26     }
27
28     return 1;
29 }

```

```
1 /* Programme de calcul de PGCD de deux entiers
2 ----- */
3
4 #include <stdlib.h>
5 #include <stdio.h>
6
7 int main ()
8 {
9     int a,b,r,x,y;
10    x = a = 51;
11    y = b = 12;
12
13    while (b != 0) {
14        r = a % b; a = b; b = r; }
15
16    printf("pgcd (%d,%d) = %d\n",x,y,a);
17
18    return EXIT_SUCCESS;
19 }
```