

```
1. /* http://www.ioccc.org/years.html */
2.
3. #include "stdio.h"
4. #define e 3
5. #define g (e/e)
6. #define h ((g+e)/2)
7. #define f (e-g-h)
8. #define j (e*e-g)
9. #define k (j-h)
10. #define l(x) tab2[x]/h
11. #define m(n,a) ((n&(a))==(a))
12.
13. long tab1[]={ 989L,5L,26L,0L,88319L,123L,0L,9367L };
14. int tab2[]={ 4,6,10,14,22,26,34,38,46,58,62,74,82,86 };
15.
16. main(m1,s) char *s; {
17.     int a,b,c,d,o[k],n=(int)s;
18.     if(m1==1){ char b[2*j+f-g]; main(l(h+e)+h+e,b); printf(b); }
19.     else switch(m1-=h){
20.         case f:
21.             a=(b=(c=(d=g)<<g)<<g)<<g;
22.             return(m(n,a|c)|m(n,b)|m(n,a|d)|m(n,c|d));
23.         case h:
24.             for(a=f;a<j;++a)if(tab1[a]&&!((long)l(n)))return(a);
25.         case g:
26.             if(n<h)return(g);
27.             if(n<j){n-=g;c='D';o[f]=h;o[g]=f;}
28.             else{c='r'-'b';n-=j-g;o[f]=o[g]=g;}
29.             if((b=n)>=e)for(b=g<<g;b<n;++b)o[b]=o[b-h]+o[b-g]+c;
30.             return(o[b-g]%n+k-h);
31.         default:
32.             if(m1-=e) main(m1-g+e+h,s+g); else *(s+g)=f;
33.             for(*s=a=f;a<e;) *s=(*s<<e)|main(h+a++,(char *)m1);
34.     }
35. }
36.
```

```
1. /**************************************************************************
2. * math1.c
3. *
4. * David J. Malan
5. * malan@harvard.edu
6. *
7. * Computes a total but does nothing with it.
8. *
9. * Demonstrates use of variables.
10. **************************************************************************/
11.
12. #include <stdio.h>
13.
14. int main(void)
15. {
16.     int x = 1;
17.     int y = 2;
18.     int z = x + y;
19.     return 0;
20. }
```

```
1. /**************************************************************************
2. * math2.c
3. *
4. * David J. Malan
5. * malan@harvard.edu
6. *
7. * Computes and prints an integral total.
8. *
9. * Demonstrates use of a format string.
10. *****/
11.
12. #include <stdio.h>
13.
14. int main(void)
15. {
16.     int x = 1;
17.     int y = 2;
18.     int z = x + y;
19.     printf("%d\n", z);
20.     return 0;
21. }
```

```
1. /**************************************************************************
2. * math3.c
3. *
4. * David J. Malan
5. * malan@harvard.edu
6. *
7. * Computes and prints a floating-point total.
8. *
9. * Demonstrates loss of precision.
10. **************************************************************************/
11.
12. #include <stdio.h>
13.
14. int main(void)
15. {
16.     float answer = 1 / 10;
17.     printf("%.2f\n", answer);
18.     return 0;
19. }
```

```
1. /**************************************************************************
2. * math4.c
3. *
4. * David J. Malan
5. * malan@harvard.edu
6. *
7. * Computes and prints a floating-point total.
8. *
9. * Demonstrates use of floating-point math.
10. **************************************************************************/
11.
12. #include <stdio.h>
13.
14. int main(void)
15. {
16.     float answer = 1 / 10.0;
17.     printf("%.2f\n", answer);
18.     return 0;
19. }
```