```
      DIMENSION F(46)
      INTEGER F
      ...
      Q=FLOAT(F(I))/FLOAT(J)
      QTRUNC=FLOAT(F(I)/J)
      IF ((Q-QTRUNC).EQ.0.) GO TO 4
```

(Does it even work on your machine?)

```
      DO 10 K=KK,N
      IF(NAME(I).EQ.NAME(K))GO TO 5
      GO TO 10
5     WRITE(6,3)NAME(I)
3     FORMAT(' ',A4)
10    CONTINUE
```

2.2 How long do you think it would take you to make the following Fortran expression for the root of a quadratic syntactically and semantically correct?

```
      ROOT1 = (-B + SQRT(B**2 - 4AC)/2A
```

Six characters *have* to be added, counting decimal points after floating point literals. Did you use eight on your first try? Which version is easier to read? Do you think knowing the quadratic formula by heart helps or hinders proofreading?

2.3 In the trapezoidal integration program discussed above, suppose you had been assigned the job of writing procedure OUT, while someone else wrote the main procedure. How many things do the two of you have to agree on — names of variables, who initializes what — before you can write OUT as it stands? If each initialized his own variables, and the values to be printed were passed as parameters as in

```
      CALL OUT (K, AREA);
```

how many things do you then have to agree on?

2.4 Consider the effort needed to change both versions of the trapezoidal integration program to deal with an arbitrary function F(X) between arbitrary limits A and B. Which conversion represents an easier task and why?