

Answers To Exercises

How did you get on with our revision exercises on page 235? Here are some model solutions, though you may have found alternative methods that also work

On page 235 we posed nine problems, designed to test your skills at using the statements and functions commonly encountered in BASIC. Here are our suggested solutions.

If you've been following the Basic Programming course so far, you may have recognised the exercises as problems that have already been met and solved. Your solutions may be different from those we have suggested here. There is seldom only one way of solving a problem; your way may be as good as, or better than, ours.

If you find the solutions as puzzling as the questions, read pages 149 onwards again and study the solutions as you progress. If you did well on exercises 2, 4, 6 and 8 you have understood most of the lessons of these articles.

```
100 REM REVISION EXERCISE 1
200 INPUT "TYPE IN ANY NUMBER";A
300 INPUT "TYPE IN ANOTHER NUMBER";B
400 LET C = A + B
500 PRINT "THEIR SUM IS ";C
```

```
100 REM REVISION EXERCISE 2
200 LET AS = "FIRSTWORD,"
300 LET BS = "SECONDWORD"
400 LET CS = AS + BS
500 PRINT CS
```

```
100 REM REVISION EXERCISE 3
200 INPUT "TYPE IN ANY WORD";WS
300 LET L = LEN(WS)
400 PRINT "THE WORD YOU TYPED HAS ";L;"
CHARACTERS"
```

```
100 REM REVISION EXERCISE 4
200 PRINT "HIT ANY KEY"
300 FOR C = 0 TO 1 STEP 0
400 LET AS = INKEY$
500 IF AS < > " " THEN LET C = 2
600 NEXT C
700 PRINT "ASCII VALUE OF ";AS;" IS ";ASC(AS)
```

See 'Basic Flavours', pages 175 and 215. On the Spectrum, replace line 700 with:

```
700 PRINT "ASCII VALUE OF ";AS;" IS ";CODE(AS)
```

```
100 REM REVISION EXERCISE 5
200 INPUT "TYPE IN ANY WORD";WS
300 LET LS = RIGHT$(WS,1)
400 PRINT "THE LAST CHARACTER OF THE WORD
IS ";LS
```

See 'Basic Flavours', page 149. This exercise on the Spectrum reads:

```
100 REM REVISION EXERCISE 5
200 INPUT "TYPE IN ANY WORD";WS
250 LET N = LEN(WS)
300 LET LS = WS(N)
400 PRINT "THE LAST CHARACTER OF THE WORD
IS ";LS
```

```
100 REM REVISION EXERCISE 6
200 PRINT "TYPE IN A NAME IN THE FORM:"
300 PRINT "FIRSTNAME SECONDNAME"
400 PRINT "E.G. JILL THOMPSON"
500 INPUT "NAME ";NS
600 LET S = 0:LET L = LEN(NS)
700 FOR P = 1 TO L
800 IF MID$(NS,P,1) = " " THEN LET S = P
900 NEXT P
950 PRINT "SPACE WAS THE ";S;"TH CHARACTER"
```

See 'Basic Flavours', page 149. On the Spectrum, replace line 800 above with:

```
800 IF NS(P) = " " THEN LET S = P
```

```
100 REM REVISION EXERCISE 7
150 LET XS = "TH"
200 PRINT "TYPE IN A NAME IN THE FORM:"
300 PRINT "FIRSTNAME SECONDNAME"
400 PRINT "E.G. JILL THOMPSON"
500 INPUT "NAME ";NS
600 LET S = 0:LET L = LEN(NS)
700 FOR P = 1 TO L
800 IF MID$(NS,P,1) = " " THEN LET S = P
900 NEXT P
925 IF S = 2 THEN LET XS = "ND"
950 PRINT "THE SPACE WAS THE ";S;"XS;"
CHARACTER"
```

```
100 REM REVISION EXERCISE 8
200 INPUT "TYPE IN A SENTENCE ";SS
300 LET C = 1
400 FOR P = 1 TO LEN(SS)
500 IF MID$(SS,P,1) = " " THEN LET C = C + 1
600 NEXT C
700 PRINT "THE SENTENCE HAS ";C;" WORDS"
```

See 'Basic Flavours', page 149. On the Spectrum, replace line 500 above with:

```
500 IF SS(P) = " " THEN LET C = C + 1
```

```
100 REM REVISION EXERCISE 9
200 FOR C = 128 TO 255
300 PRINT "CHARACTER NO. ";C;" = ";CHR$(C)
400 REM A SHORT DELAY HERE
500 FOR D = 1 TO 500
600 NEXT D
700 REM END OF DELAY
800 NEXT C
```