

Note: For all example problems, numeric datatypes cannot contain decimal numbers and are rounded to the nearest integer when being stored or during multi-step calculations.

PSEUDO-1

```
01  WORK      NUMERIC (3)
02  MINIMUM   CONSTANT 70
03  THREE     CONSTANT 3
04  PASS      CONSTANT "PASS"
05  FAIL      CONSTANT "FAIL"
06  STARTIT  READ WORK FROM INPUT (26-27) ENDFILE GO ENDIT.
07           WORK IS WORK PLUS INPUT (26-27).
08           WORK IS WORK PLUS INPUT (28-29).
09           WORK IS WORK DIVIDED BY THREE.
10           LOAD INPUT (30-33) FROM PASS.
11           IF WORK LESS THAN MINIMUM
12             LOAD INPUT (30-33) FROM FAIL.
13           ENDIF
14           WRITE INPUT (30-33) TO OUTPUT.
15           GO STARTIT.
16  ENDIT     STOP.
```

INPUT FILE POSITIONS 26-27: CLASS GRADE  
          POSITIONS 28-29: FINAL TEST GRADE

```
0      1      2      3
123456789012345678901234567890123456789
                                7688
                                7767
                                6078
                                6677
                                8694
                                8888
```

Q1-1: What formula would best describe the calculations being performed?

Q1-2: How many records are written with the word "FAIL"?

Q1-3: If line 10 is deleted, what would be the effect in the output?

Q1-4: If line 09 is deleted and line 02 is replaced with "MINIMUM CONSTANT 209"  
how many records are written with the word "PASS"?

PSEUDO-3

```
01   H Numeric (3)
02   I Numeric (3)
03   J Numeric (3)
04   K Numeric (3)
05
06   Start       Load 2 to H
07   Again       Load 2 to J
08               Loop while J less H
09               I is H divide J
10               K is J times I
11               If K equal H
12                 Go to Check
13               Endif
14               Add 1 to J
15               End Loop
16               Print H
17   Check       Add 1 to H
18               If H < 100
19                 Go to Again
20               Endif
21   End
```

Q3-1: What are the first five numbers printed?

Q3-2: What are H and J at the end of the program?

Q3-3: If line 07 said "Load 1 to J" what would the first five numbers be?

Note: IF statements contained on one line (like line 19) do not require an ENDIF.

PSEUDO-5

```
01      I NUMERIC (3)
02      J NUMERIC (3)
03      K NUMERIC (3)
04      L NUMERIC (3)
05
06      LOAD 1 TO I
07      LOAD 2 TO J
08      LOAD 3 TO K
09
10  A   IF I LESS J
11      GOTO C
12      ENDIF
13
14      L = I / J + K
15
16  B   I = I + 1
17      J = J - 1
18      PRINT I J K
19      IF L > 10 GOTO EOJ
20
21      IF K NOT < 5
22      K = K - 2
23      GOTO B
24      ENDIF
25
26  C   I = I + 2
27      K = K + 1
28      GOTO A
29
30  EOJ PRINT I J K L
```

Q5-1: How many lines are printed?

Q5-2: What is the value of L at EOJ?

Q5-3: How many times is the statement at label A executed?

PSEUDO-8

```
01  I NUMERIC (3)
02  J NUMERIC (3)
03  K NUMERIC (3)
04  L NUMERIC (3)
05
06  LOAD 1 TO J
07  LOOP WHILE J LESS 10
08  LOAD 1 TO K
09  LOOP WHILE K LESS 10
10  L IS J DIVIDE K
11  IF L GREATER 0
12  PRINT J K L
13  ENDIF
14  K IS K PLUS 1
15  ENDLLOOP
16  J IS J PLUS 1
17  ENDLLOOP
```

Q8-1: How many lines are printed?

Q8-2: What is the value of J at program completion?

Q8-3: How many times is the instruction L IS J DIVIDE K (line 05) executed?