# Sample answer: NESA 2020 HSC Software Design and Development Marking Guidelines

Key: R=row, S=seat, N=number of seats needed.

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| 1 | BEGIN  |
| 2 | REPEAT |
| 3 | R =0  |
| 4 | input N  |
| 5 | Found = FALSE |
| 6 | WHILE R < 14 AND Found = FALSE  |
| 7 | R =R +1  |
| 8 | S =0  |
| 9 | WHILE S < = 10-N AND Found = FALSE  |
| 10 | S =S +1 |
| 11 | Total = 0 |
| 12 | Index = 0 |
| 13 | WHILE Index < N AND Found = FALSE  |
| 14 | IF Grid(R,S+index) = “” THEN |
| 15 | Total = Total + 1  |
| 16 | END IF  |
| 17 | Index = Index+1 |
| 18 | IF Total = N THEN  |
| 19 | Found = TRUE  |
| 20 | ENDIF  |
| 21 | ENDWHILE  |
| 22 | ENDWHILE |
| 23 | ENDWHILE |
| 24 | IF Found = FALSE THEN  |
| 25 | print “Sorry – that number of seats is not available”  |
| 26 | again = TRUE |
| 27 | ELSE  |
| 28 | FOR loop = 0 TO N–1 |
| 29 | print Grid(R,0), Grid(0,S+loop) |
| 30 | Grid(R,S+loop)=”X”  |
| 31 | NEXT  |
| 32 | again = FALSE |
| 33 | ENDIF |
| 34 | UNTIL again = FALSE |
| 35 | END |