**Exercises: Structured English**

**Write the structured English for each of the problems below.**

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| **Q\_No.** | **Question** | **Structured English** |
| 1 | Temperatures can be converted from Fahrenheit to Centigrade using the following formula, where F is the temperature in Fahrenheit and C the temperature in Centigrade:  C = 5 (F-32) / 9    Write a program to input a Fahrenheit temperature and output the equivalent temperature in Centigrade. | SET temp  INPUT temp  MINUS 32 from temp  MULTIPLY temp with 5  DIVIDE temp by 9  OUTPUT temp |
| 2 | Barnet FC Supporters Club organises coaches to take members to away matches. Between 8am and 9am members turn up at the home ground where there is a line of coaches. They always board the front coach. When a coach is full, it sets off. At 9am the current front coach sets off, whether or not it is full. Write a program to carry out the following tasks:   * Input the total number of club members travelling to a match * Input the seating capacity of a coach (assume they are all the same) * Output the number of full coaches * Output the number of passengers on the last coach | SET total, capacity,number, passenger AS integer  INPUT total number of member travelling to the match  INPUT the seating capacity of a coach  SET number AS Total DIV capacity  OUTPUT number  SET passenger AS total MOD capacity  OUTPUT passengers |
| **3**  **(Challenge)** | **Write a program to help with journey planning. The program should input the starting time and the time taken, both in hours and minutes. It should output the finishing time (using a 12 hour clock). The hours and minutes should be entered separately as in the console session below. Hint: Use six variables, two for each time (one variable for the hours, one for the minutes). Use integer division and modulus operations.** | SET starting\_h, starting\_m, time\_taken\_m, time\_taken\_h, finish\_h, finish\_m As integer  SET finish\_h AS ADD starting\_h and time\_taken\_h  SET finish\_m AS ADD starting\_m and time\_taken\_m  IF finish\_m >= 60 THEN  ADD finish\_h by 1  MINUS finish\_m by 60  END IF  IF finish\_h >12 THEN  MINUS finish\_m by 12  END IF  OUTPUT finish\_h &”:”& finish\_m |

**Extension:** Once you have completed writing the structured English for each problem, use it to program a solution for each question.