Problem A

A pizza takeaway offers **Regular, Large and Family** size pizzas, with four possible toppings **Hawaiian, Seafood, Meat Feast and Vegetarian.** The number of pizzas ordered of each size / topping can be expressed as a matrix.

$$\begin{array}{c} \\ R \\ L \\ F \end{array} \begin{array}{c} \begin{array}{cccc} H & S & M & V \end{array} \\ \begin{pmatrix} 2 & 3 & 0 & 1 \\ 5 & 7 & 8 & 4 \\ 6 & 4 & 3 & 3 \end{pmatrix} \end{array}$$

Given that a regular pizza requires 2 quantities of topping, a large pizza requires 3 quantities of topping and a family size pizza requires 4 quantities of topping, write out the calculation to find the total quantities of each type of topping to make these orders.

Problem B

The table below is a league table for the group stage for the FIFA Women's World Cup 2015 held in Canada. The top 2 teams in the group progress through to the next round; scoring 3 points for a win, 1 point for a draw and 0 points for losing a match.

Group F	MP	W	D	L
FRANCE	3	2	0	1
ENGLAND	3	2	0	1
COLOMBIA	3	1	1	1
MEXICO	3	0	1	2

Calculate the total points for each team, writing out each calculation, and hence state which two teams progressed through to the next round.