Line 1: import the scanner class. This class is responsible for get the input from system stdin, files.etc.

Line 2: **heliocentric** declared as public. Public is access modifier.

Line 3: Inside the class declaration main method is declared and implemented. This method is declared as static and public. And also, the return type is void since main function will not return anything. Static keyword is used when we want to call method without creating an instance of that given class. Since main method is not a member function of any class it is declared as static and also it should be public.

Line 4: Inside the main function the object of the Scanner class is created using it’s constructor. As the argument System.in is given since we are giving input as stdin. The name of the object is given as scan.

Line 6: int variable cases is declared and assign 1

Line 7: While loop is created. This loop run until there has an next integer value where it scans.If there is not further int values loop will be break;

Line 9: It will print the message and the case number using case variable that declared an initialize before. For example:

Case 1:

Line 11 -13: Three int variable are declared and assigned some value to that variable. Variable earth and mars are assigned using the given input. Using scan object, it will read given input and assign to relevant variable. Variable days is assigned to 0 for each loop of the outer loop. (Before begin the inner loop)

Line 15: Inner while loop is created. It will run the both earth and mars become 0 at same time.

Line 17: Next the earth variable is updated using modular division. To the current earth value add a one and get modular division by 365. It will give a value that belongs to [0,364] range. That value Is assigned to earth as new earth value. Also same thing is done to the mars by using 687 modular division.

Line 19: then the days variable is increase by one

That loop is going until earth and mars Is equal to zero same time.

When this happens it breaks the inner loop and go to the next line of the outterloop.(Line 22)

Line22: It will print the value of the days that updated by the inner loop.

Line23: Then cases varia le that declared before is increment by each loop of the outer loop by one.

When there is not int variable found next outer loop will break next scan object is close and end the program