

Student	Christine Woods	36+28 = 64
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Part 1

	Available	Marks
Create a vector <i>v1</i> that contains the values 1 to 12.	2	2
Add the values 13 to 16 to the end of <i>v1</i> .	2	2
Using <i>v1</i> , create a new vector <i>v2</i> that contains the 1 st to 7 th and 12 th to 16 th elements of <i>v1</i> .	3	3
Calculate <i>v1+v2</i> and display the results. This will generate a warning; in your comments, explain how R adds two vectors of different lengths.	4	4
Create a new vector <i>v3</i> by selecting all even elements of <i>v1</i> using a filter.	2	1
Create a matrix <i>m1</i> with 4 rows from vector <i>v1</i> .	3	3
Create a matrix <i>m2</i> with 3 columns from vector <i>v2</i> .	3	3
Create and display a new matrix <i>m3</i> from <i>m1</i> and <i>m2</i> where <i>m3</i> contains all of the columns of both source matrices.	4	4
Label the columns of <i>m3</i> as "a", "b", "c", "d", "e", "f" and "g".	2	2
Remove row 3 from <i>m3</i> .	3	3
Calculate and display the means of each column.	4	4
Create a barplot of row 1 of <i>m3</i> .	3	2
Commenting and use of white space	5	3
Comments Comments are good, but you could use the white space more effectively by breaking the code into sections representing the different questions; it's a bit difficult to work out where the code for one question ends and the next one starts. You've got the filter format right, but you should display the numbers, not Yes/No. Good basic barplot; check out the help files to find out how to label it.		

Part 2

	Available	Marks
Generate wondrous numbers	25	13
Fibonacci numbers and integer square roots	6	1
Creating and displaying an appropriate data frame	14	7
Updating the data frame	10	3
Commenting and use of white space	5	4
Comments Good commenting and use of white space, although be careful not to have lines of text that are too long. 80 characters wide is generally a good limit for most programming environments. You've got the code to correctly calculate the terms of the sequence, but you've only calculated the sequence for one value (12). It should be calculated for the values 1 to 30. You should calculate whether things are TRUE or FALSE, not simply state them. Your data frame creation and manipulation is fine in the context of the data that you've used, but the information in the data frame is limited – it should be 4 columns and 30 rows. Again, the updating of the frame is correct in syntax for your context, but you should be updating a column rather than a row. The inserted row (in your version) should have been in row 3 of the data frame, not at the bottom. Overall the coding shows that you've got a good grasp of the processes and syntax but need to look more carefully at what the question is asking for.		