

Student	Ross Meek	36+41=77
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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	2
Create a matrix <i>m1</i> with 4 rows from vector <i>v1</i> .	3	2
Create a matrix <i>m2</i> with 3 columns from vector <i>v2</i> .	3	2
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	4
Comments Good use of comments, but add more white space to clearly separate the different sections. Elegant use of subset(). You don't need to use the c() call in matrix() when you're only using data from a single vector. Good use of apply(). Good simple barplot, but look at the help file for barplot() to add labels.		

Part 2

	Available	Marks
Generate wondrous numbers	25	13
Fibonacci numbers and integer square roots	6	4
Creating and displaying an appropriate data frame	14	12
Updating the data frame	10	9
Commenting and use of white space	5	3
Comments Comments are good, but where you're calling the function you should comment it for each of the 30 calls. Not the most elegant way of solving the problem, but it gets the job done. The use of function() is good. Your list of terms is one lower than it should be but the numbers are fine otherwise. The calculation of Fibonacci numbers is good, but fibtf, the list of T/F for the square roots should be generated, not stated. The data frame is good, although you could have generated the column names in the initial creation statement rather than adding them later. Elegant way of updating the data frame, although you could have simplified it even further to <code>dataf\$Fibonacci<-n*n</code>		

- 0 – Nothing submitted
- 3 – Major errors and no comments
- 4 – Minor errors, code does not work
- 5 – Code works, no comments
- 6 – Code works, minor comments
- 7 – Code works, good comments
- 8+ – Elegant code, fully commented and explained