RWorksheet_Andigan#1.rmd

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age <- c(34, 28, 22, 36, 27, 18, 52, 39, 42, 29, 35, 31, 27, 22, 37, 34, 19, 20, 57, 49, 50, 37, 46, 25, 17, 37, 42, 53, 41, 51, 35, 24, 33, 41) > age [1] 34 28 22 36 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50 37 46 [24] 25 17 37 42 53 41 51 35 24 33 41 > num_data_points <- length(age) > num_data_points [1] 34 > reciprocal_age <- 1 / age > reciprocal_age [1] 0.02941176 0.03571429 0.04545455 0.02777778 0.03703704 0.05555556 [7] 0.01923077 0.02564103 0.02380952 0.03448276 0.02857143 0.03225806 [13] 0.03703704 0.04545455 0.02702703 0.02941176 0.05263158 0.05000000 [19] 0.01754386 0.02040816 0.02000000 0.02702703 0.02173913 0.04000000 [25] 0.05882353 0.02702703 0.02380952 0.01886792 0.02439024 0.01960784 [31] 0.02857143 0.04166667 0.03030303 0.02439024 > sorted_age <- sort(age) > sorted_age [1] 17 18 19 20 22 22 24 25 27 27 28 29 31 33 34 34 35 35 36 37 37 37 39 [24] 41 41 42 42 46 49 50 51 52 53 57 > new_age <- c(age, 0, age) > new_age [1] 34 28 22 36 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50 37 46 [24] 25 17 37 42 53 41 51 35 24 33 41 0 34 28 22 36 27 18 52 39 42 29 35 [47] 31 27 22 37 34 19 20 57 49 50 37 46 25 17 37 42 53 41 51 35 24 33 41 > min_age <- min(age) > max_age <- max(age) > min_age [1] 17 > max_age [1] 57 > data <- c(2.4, 2.8, 2.1, 2.5, 2.4, 2.2, 2.5, 2.3, 2.5, 2.3, 2.4, 2.7) > data [1] 2.4 2.8 2.1 2.5 2.4 2.2 2.5 2.3 2.5 2.3 2.4 2.7 > num_data_points <- length(data) > num_data_points [1] 12 > doubled_data <- 2 * data > doubled_data [1] 4.8 5.6 4.2 5.0 4.8 4.4 5.0 4.6 5.0 4.6 4.8 5.4 > ntegers_1_100 <- 1:100 > integers_1_100 <- 1:100 > integers_1_100 [1] 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 [18] 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 [35] 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 [52] 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 [69] 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 [86] 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 > numbers_20_60 <- 20:60 > mean_20_60 <- mean(numbers_20_60) > sum_51_91 <- sum(51:91) > numbers_20_60 [1] 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 [24] 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 > mean_20_60 [1] 40 > sum_51_91 [1] 2911 > Total_data_points <- 143 > Total_data_points [1] 143 > integers_1_1000 <- 1:1000 > max_10 <- max(integers_1_1000[1:10]) > max_10 [1] 10 > non_divisible_numbers <- Filter(function(i) { all(i %% c(3, 5, 7) != 0) }, seq(100)) > non_divisible_numbers [1] 1 2 4 8 11 13 16 17 19 22 23 26 29 31 32 34 37 38 41 43 44 46 47 [24] 52 53 58 59 61 62 64 67 68 71 73 74 76 79 82 83 86 88 89 92 94 97 > seq(100) [1] 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 [18] 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 [35] 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 [52] 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 [69] 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 [86] 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 > sequence_backwards <- seq(100, 1, by = -1) > sequence_backwards [1] 100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 [18] 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 [35] 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 [52] 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 [69] 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 [86] 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 > multiples_of_3_or_5 <- c(seq(3, 24, by = 3), seq(5, 25, by = 5)) > multiples_of_3_or_5 <- unique(multiples_of_3_or_5) > sum_of_multiples <- sum(multiples_of_3_or_5) > multiples_of_3_or_5 [1] 3 6 9 12 15 18 21 24 5 10 20 25 > sum_of_multiples [1] 168 > x <- 10 + x + 5 + } Error: unexpected '}' in " x <- 10 + x + 5 + }" > ##If x is undefined, an error will be generated >

> > ##f x has a value, the calculated sum will be displayed. For example, if x was previously 2, the output would be 17 Error: unexpected '>' in ">" > ##f x has a value, the calculated sum will be displayed. For example, if x was previously 2, the output would be 17 >

> score <- c(72, 86, 92, 63, 88, 89, 91, 92, 75, 75, 77) > > x2 <- score[2] > x3 <- score[3] > x2 [1] 86 > x3 [1] 92 > a <- c(1, 2, NA, 4, NA, 6, 7) > print(a,na.print="-999") [1] 1 2 -999 4 -999 6 7 > ## it filtered out the Na > name = readline(prompt="Input your name:") Input your name: Khylle > age =

readline(prompt="Input your age:") Input your age: 19 > print(paste("My name is", name, "and I am", age, "years old.")) [1] "My name is Khylle and I am 19 years old." > print(R.version.string) [1] "R version 4.4.1 (2024-06-14)" > ## the output is my name and my age > ## also the version of my R