

Exercise 3;0 *The exercises here show the techniques of logical indexing. Given $x = 1:10$ and $y = [3\ 1\ 5\ 6\ 8\ 2\ 9\ 4\ 7\ 0]$, execute and interpret the results of the following commands:*

1(a) $(x > 3) \& (x < 8)$

1(b) $x(x > 5)$

1(c) $y(x \leq 4)$

1(d) $x((x < 2) \mid (x \geq 8))$

1(e) $y((x < 2) \mid (x \geq 8))$

1(f) $x(y < 0)$

Given $x = [3\ 15\ 9\ 12\ -1\ 0\ -12\ 9\ 6\ 1]$, provide the command(s) that will

2(a) ... set the positive elements of x to zero.

2(b) ... set values of x that are multiples of 3 to 3 (**rem** will help here).

2(c) ... multiply the even elements of x by 5.

2(d) ... extract the values of x that are greater than 10 into a vector called y .

2(e) ... set the values in x that are less than the mean value of x to zero.

2(f) ... set the values in x that are above the mean to their difference from the mean.

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