

Hw01

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1 Problem 1

1.1 1(a)

The line of code `plot(x, y, 'k')` creates the black line and the line `plot(x, y, 'bo')` creates the blue circles.

1.2 1(b)

The blue circles are points on the line $y = 2x + 3$. The vectors x and y each have 17 numbers in them. Each of the 17 dots is at a point (x, y) , where the x -value is one of the entries of the vector x and the y -value is the corresponding entry of the vector y .

2 Problem 2

2.1 2(a)

The operator is performing elementwise exponentiation. That is, it raises each entry of a vector to a power. In particular, the code raises each entry of x to the second power.

2.2 2(b)

The black curve is supposed to represent the graph of the parabola $y = x^2 - 1$, but it is not actually a smooth curve. Instead, MATLAB plots the 17 points we specified with x and y and then connects these points with straight lines.