

YOUR NAME: \_\_\_\_\_

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Read each problem **very carefully** before starting to solve it. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [3 points] Consider the relation defined by the following table:

$x$	2	5	7	13
$y$	3	6	5	6

- (a) Is the relation a function? Explain.

- (b) If it is a function, is it one-to-one? Explain.

2. [5 points] Consider the function  $f(x) = x^2 - 3x$ .

- (a) Evaluate  $f(a + h)$  and simplify.

- (b) Solve  $f(x) = 4$ , i.e., find for which input values the output equals 4.