

Name: \_\_\_\_\_

## Linear or Nonlinear Functions

Sheet 3

A) Determine whether each function is linear or nonlinear.

1)  $x^2 - 11 = 4y$

2)  $y = \frac{x}{6} + 1$

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3)  $y + \frac{x^3}{2} = 9$

4)  $y = 5x - 8$

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5)  $x - y = 0$

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7)  $2x(5 + 3x) = 10$

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B) 1) Which of the following is a linear function?

i)  $x^2 + 4y = 13$

ii)  $y = \frac{x^4}{3} - 11$

iii)  $x(2 + 8x) = y$

iv)  $y = -7x + 2$

2) Which of the following is a nonlinear function?

i)  $y = x(5 - 9x)$

ii)  $6x - y = 1$

iii)  $y = 3x + 14$

iv)  $x - \frac{4}{5} = y$