

Name: _____

Linear or Nonlinear Functions

Sheet 1

A) Determine whether each function is linear or nonlinear.

1) $5y = 7x + 6$

2) $y = 4 + \frac{x^5}{3}$

3) $y - \frac{x}{9} = 12$

4) $2x^3 = y - 11$

5) $9x^4 - y = 13$

6) $y = -5(x + 7)$

7) $y + 8 = \frac{x}{2}$

8) $2y = 6x^2 - x + 3$

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

i) $y = 4x^4 + 10$

ii) $x^2 = 7y - 3$

iii) $y + \frac{x}{5} = 14$

iv) $8y = -5x(3 + x)$

2) Which of the following is a nonlinear function?

i) $2x + 1 = y$

ii) $y = -\frac{x^3}{9} + 12$

iii) $y + 6x = 5$

iv) $y = -10x - 3$