

Average Rate of Change

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Name _____

Date _____

For each problem, find the average rate of change of the function over the given interval.

1) $f(x) = -x^2 + 2;$ $[-2, 1]$

2) $f(x) = -x^2 - x + 2;$ $[-1, 1]$

3) $f(x) = x^2 + 1;$ $[-2, 1]$

4) $f(x) = x^2 - 1;$ $[0, 1]$

5) $f(x) = -x^2 + x + 1;$ $[1, 2]$

6) $f(x) = 2x^2 + 2;$ $[0, 1]$

7) $f(x) = 2x^2 - x + 2;$ $[-1, 0]$

8) $f(x) = x^2 + 1;$ $[-2, -1]$

$$9) \ f(x) = x^2 + x + 2; \ [-2, -1]$$

$$10) \ f(x) = x^2 + x - 2; \ [-3, -2]$$

$$11) \ f(x) = 2x^2 - 1; \ [-1, 0]$$

$$12) \ f(x) = 2x^2 + 1; \ [0, 1]$$

$$13) \ f(x) = x^2 - 1; \ [1, 2]$$

$$14) \ f(x) = -2x^2 + 2; \ [-1, 0]$$

$$15) \ f(x) = x^2 - 2; \ [-1, 1]$$

$$16) \ f(x) = x^2 + 2; \ [-2, 0]$$

Answers to Average Rate of Change

1) 1

5) -2

9) -2

13) 3

2) -1

6) 2

10) -4

14) 2

3) -1

7) -3

11) -2

15) 0

4) 1

8) -3

12) 2

16) -2

