

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) $f(x) = -\frac{1}{x+3}$; $[-1, -\frac{3}{4}]$

2) $f(x) = -2x^2 + 1$; $[1, \frac{5}{4}]$

3) $f(x) = x^2 - 1$; $[-2, -\frac{5}{3}]$

4) $f(x) = -\frac{1}{x+2}$; $[-1, -\frac{2}{3}]$

5) $f(x) = -\frac{1}{x+1}$; $[1, \frac{4}{3}]$

6) $f(x) = 2x^2 + x + 2$; $[1, \frac{5}{4}]$

7) $f(x) = -\frac{1}{x-1}$; $[-2, -\frac{7}{4}]$

8) $f(x) = \frac{1}{x-1}$; $[-5, -\frac{19}{4}]$

$$9) f(x) = \frac{1}{x+2}; \quad [0, \frac{1}{4}]$$

$$10) f(x) = \frac{1}{x+2}; \quad [-1, -\frac{2}{3}]$$

$$11) f(x) = -2x^2 + x + 2; \quad [-1, -\frac{2}{3}]$$

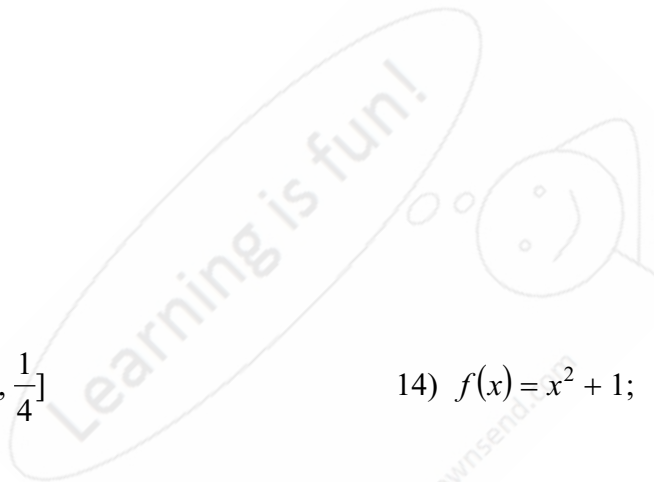
$$12) f(x) = 2x^2 + x + 2; \quad [1, \frac{4}{3}]$$

$$13) f(x) = 2x^2 - 1; \quad [0, \frac{1}{4}]$$

$$14) f(x) = x^2 + 1; \quad [-1, -\frac{3}{4}]$$

$$15) f(x) = -x^2 - x + 1; \quad [2, \frac{7}{3}]$$

$$16) f(x) = -2x^2 + 2x + 2; \quad [2, \frac{7}{3}]$$



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Answers to Average Rate of Change

1) $\frac{2}{9}$

2) $-\frac{9}{2}$

3) $-\frac{11}{3}$

4) $\frac{3}{4}$

5) $\frac{3}{14}$

6) $\frac{11}{2}$

7) $\frac{4}{33}$

8) $-\frac{2}{69}$

9) $-\frac{2}{9}$

10) $-\frac{3}{4}$

11) $\frac{13}{3}$

12) $\frac{17}{3}$

13) $\frac{1}{2}$

14) $-\frac{7}{4}$

15) $-\frac{16}{3}$

16) $-\frac{20}{3}$

