Average Rate of Change of a Quadratic

Name_____ Period:_____ Date:_____

Directions: Use the information given to solve each problem.

1. What is the average rate of change for the function $f(x) = 2x^2 - 4$ on the interval $-2 \leq x \leq 1$?

   A. 4

   B. 6

   C. -2

   D. 2

2. What is the average rate of change for the function $f(x) = -x^2 + 6$ on the interval $0 \leq x \leq 2$?

   A. -4

   B. -2

   C. -6

   D. -1

3. What is the average rate of change for the function $f(x) = \frac{1}{2}x^2 - 3$ on the interval $1 \leq x \leq 3$?

   A. 1

   B. 3

   C. 2

   D. 4

4. What is the average rate of change for the function $f(x) = 4x^2 + 1$ on the interval $-1 \leq x \leq 2$?

   A. 16

   B. 12

   C. 8

   D. 10

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Answer Key

Directions: Use the information given to solve each problem.

1. What is the average rate of change for the function $f(x) = 2x^2 - 4$ on the interval $-2 \leq x \leq 1$?

   A. 4
   B. 6
   C. -2
   D. 2

   C

2. What is the average rate of change for the function $f(x) = -x^2 + 6$ on the interval $0 \leq x \leq 2$?

   A. -4
   B. -2
   C. -6
   D. -1

   B

3. What is the average rate of change for the function $f(x) = \frac{1}{2}x^2 - 3$ on the interval $1 \leq x \leq 3$?

   A. 1
   B. 3
   C. 2
   D. 4

   C

4. What is the average rate of change for the function $f(x) = 4x^2 + 1$ on the interval $-1 \leq x \leq 2$?

   A. 16
   B. 12
   C. 8
   D. 10

   C