

**A2.A.39: Domain and Range 1: Determine the domain and range of a function from its equation**

- 1 What is the range of the relation  $y = 2x^2 + 3x$  if the domain is the set  $\{-2, -1, 0\}$ ?
  - 1)  $\{2, 1, 0\}$
  - 2)  $\{2, -1, 0\}$
  - 3)  $\{-1, -5, 0\}$
  - 4)  $\{10, 1, 0\}$
  
- 2 If the domain of  $f(x) = 2x + 1$  is  $\{-2 \leq x \leq 3\}$ , which integer is *not* in the range?
  - 1)  $-4$
  - 2)  $-2$
  - 3)  $0$
  - 4)  $7$
  
- 3 If the domain of  $f(x) = 2x + 3$  is  $\{-3 < x \leq 0\}$ , which number is *not* in the range?
  - 1)  $-1$
  - 2)  $0$
  - 3)  $3$
  - 4)  $6$
  
- 4 The domain for  $f(x) = 3x + 2$  is  $-3 \leq x \leq 2$ . The greatest value in the range of  $f(x)$  is
  - 1)  $-7$
  - 2)  $2$
  - 3)  $8$
  - 4)  $11$
  
- 5 The domain of  $f(x) = x^2 + 2x + 1$  is  $-3 \leq x \leq 3$ . The largest value in the range of  $f(x)$  is
  - 1)  $20$
  - 2)  $16$
  - 3)  $3$
  - 4)  $4$
  
- 6 A function is defined by the equation  $y = 8x - 3$ . If the domain is  $2 \leq x \leq 4$ , find the minimum value in the range of the function.
  
- 7 If the domain of  $f(x) = x^2 + 1$  is limited to  $\{0, 1, 2, 3\}$ , what is the maximum value of the range?

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**Answer Section**

1 ANS: 2                   PTS: 2                   REF: 088433siii

2 ANS: 1                   PTS: 2                   REF: 080132siii

3 ANS: 4                   PTS: 2                   REF: 080320siii

4 ANS: 3                   PTS: 2                   REF: 088924siii

5 ANS: 2                   PTS: 2                   REF: 089927siii

6 ANS:  
13

PTS: 2                   REF: 019013siii

7 ANS:  
10

PTS: 2                   REF: 060209siii