

**Exercise 1** Let the function  $B$  be defined as  $B(k) = 2(k + 3)^2 - 5$  with a domain of  $(-\infty, \infty)$ . Which of the following are pairs in  $B$ ?

**Select All Correct Answers:**

- (a)  $(-1, 3)$  ✓
  - (b)  $(-3, -5)$  ✓
  - (c)  $(-2, -3)$  ✓
  - (d)  $(0, 13)$  ✓
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**Exercise 2** Let the function  $B$  be defined as  $B(k) = 2(k + 3)^2 - 5$  with a domain of  $[-3, \infty)$ . Which of the following are pairs in  $B$ ?

**Select All Correct Answers:**

- (a)  $(-1, 3)$  ✓
  - (b)  $(-3, -5)$  ✓
  - (c)  $(-2, -3)$  ✓
  - (d)  $(0, 13)$  ✓
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**Exercise 3** Let the function  $B$  be defined as  $B(k) = 2(k + 3)^2 - 5$  with a domain of  $(-3, \infty)$ . Which of the following are pairs in  $B$ ?

**Select All Correct Answers:**

- (a)  $(-1, 3)$  ✓
  - (b)  $(-3, -5)$
  - (c)  $(-2, -3)$  ✓
  - (d)  $(0, 13)$  ✓
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**Exercise 4** Let the function  $B$  be defined as  $B(k) = 2(k + 3)^2 - 5$  with a domain of  $[0, \infty)$ . Which of the following are pairs in  $B$ ?

**Select All Correct Answers:**

- (a)  $(-1, 3)$
  - (b)  $(-3, -5)$
  - (c)  $(-2, -3)$
  - (d)  $(0, 13)$
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**Exercise 5** Let the function  $B$  be defined as  $B(k) = 2(k + 3)^2 - 5$  with a domain of  $(-\infty, \infty)$ . Let  $A$  be any real number. Then  $B(A) > -5$ .

**Multiple Choice:**

- (a) True
  - (b) False ✓
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**Exercise 6** Let the function  $B$  be defined as  $B(k) = 2(k + 3)^2 - 5$  with a domain of  $(-\infty, \infty)$ . Let  $A$  be any real number. Then  $B(A) \geq -5$ .

**Multiple Choice:**

- (a) True ✓
  - (b) False
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