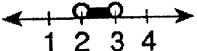
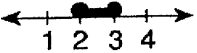
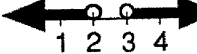
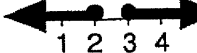
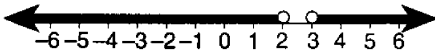
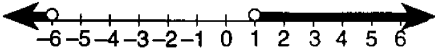
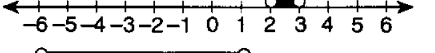
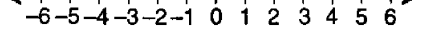


A.REI.D.11: Quadratic Inequalities 2

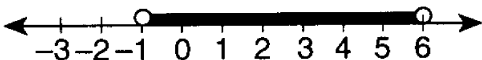
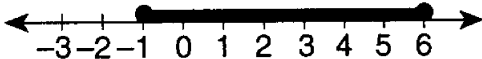
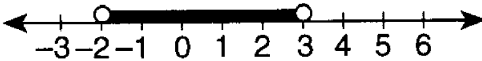
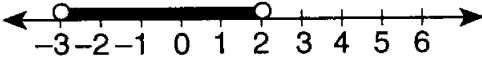
1 Which graph represents the solution set of $x^2 - 5x + 6 < 0$?

- 1) 
- 2) 
- 3) 
- 4) 

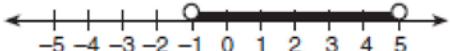
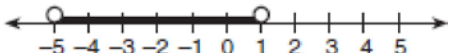
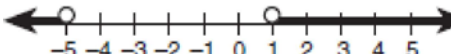
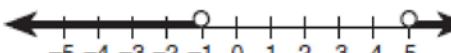
2 Which graph represents the solution set of $x^2 + 5x - 6 > 0$?

- 1) 
- 2) 
- 3) 
- 4) 

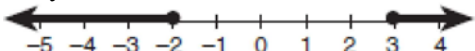
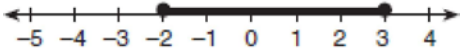
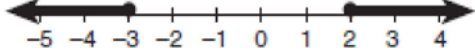

3 Which graph represents the inequality $x^2 - 5x - 6 < 0$?

- 1) 
- 2) 
- 3) 
- 4) 

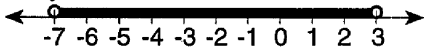
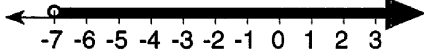
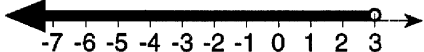
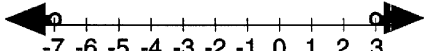
4 Which graph represents the solution set of the inequality $x^2 - 4x - 5 < 0$?

- 1) 
- 2) 
- 3) 
- 4) 

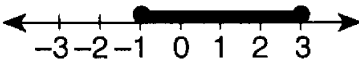
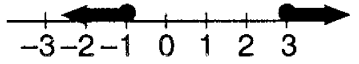
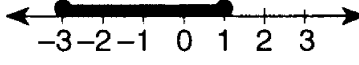
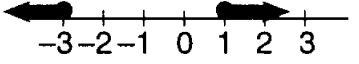
5 Which graph represents the solution of the inequality $x^2 - x - 6 \geq 0$?

- 1) 
- 2) 
- 3) 
- 4) 

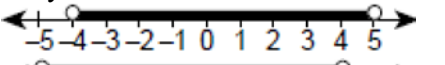
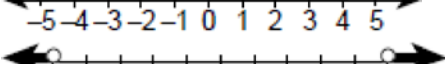
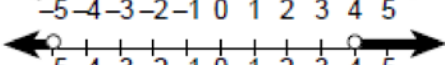
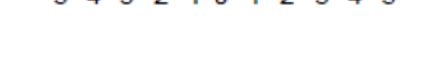
6 Which graph represents the solution of the inequality $x^2 + 4x - 21 < 0$?

- 1) 
- 2) 
- 3) 
- 4) 

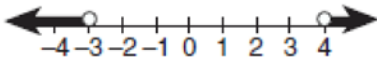
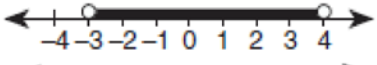
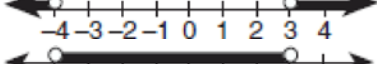
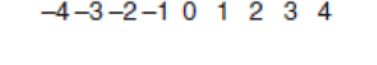
7 What is the solution set for the inequality $x^2 - 2x - 3 \leq 0$?

- 1) 
- 2) 
- 3) 
- 4) 

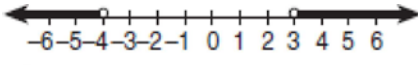
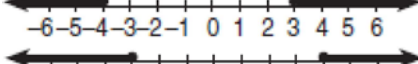
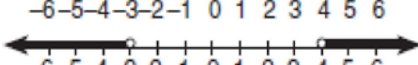
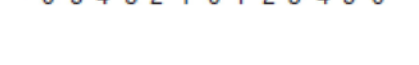
8 Which graph represents the solution set for the inequality $x^2 - x - 20 < 0$?

- 1) 
- 2) 
- 3) 
- 4) 

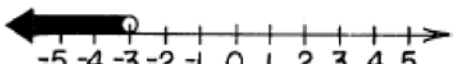
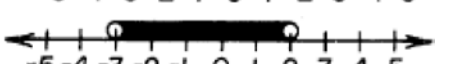
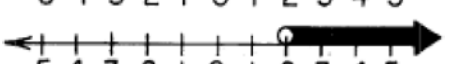
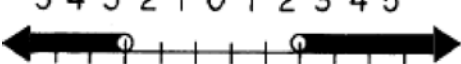
9 Which graph represents the solution set of $x^2 - x - 12 < 0$?

- 1) 
- 2) 
- 3) 
- 4) 

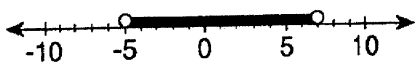
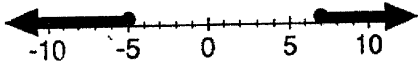
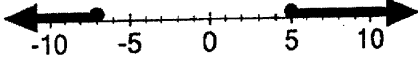
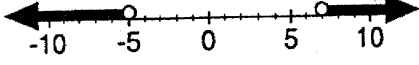
10 Which graph represents the solution set for $x^2 + x > 12$?

- 1) 
- 2) 
- 3) 
- 4) 

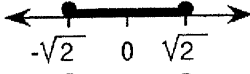
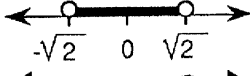
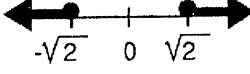
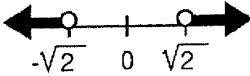
11 What is the solution set for $(x + 3)(x - 2) > 0$?

- 1) 
- 2) 
- 3) 
- 4) 

12 Which is the graph of the solution set of the inequality $(x - 7)(x + 5) \geq 0$?

- 1) 
- 2) 
- 3) 
- 4) 

13 Which graph represents the solution set of $x^2 - 2 \geq 0$?

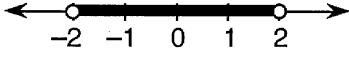
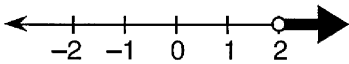
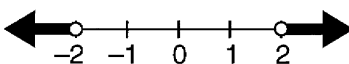
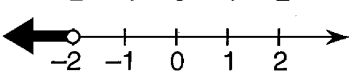
- 1) 
- 2) 
- 3) 
- 4) 

16 Which inequality is represented by the graph below?

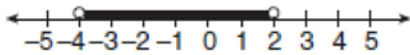


- 1) $x^2 - 2x - 15 > 0$
- 2) $x^2 - 2x - 15 < 0$
- 3) $x^2 - 2x - 15 \leq 0$
- 4) $x^2 + 2x - 15 < 0$

14 Which graph represents the inequality $x^2 - 4 > 0$?

- 1) 
- 2) 
- 3) 
- 4) 

15 The graph below represents the solution set of which inequality?



- 1) $x^2 - 2x - 8 < 0$
- 2) $x^2 + 2x - 8 < 0$
- 3) $x^2 - 2x - 8 > 0$
- 4) $x^2 + 2x - 8 > 0$

A.REI.D.11: Quadratic Inequalities 2

Answer Section

- 1 ANS: 1 REF: 089526siii
 2 ANS: 2 REF: 069826siii
 3 ANS: 1 REF: 069918siii
 4 ANS: 1

$x^2 - 4x - 5 < 0$ $(x - 5)(x + 1) < 0$ <p>For the product of these binomials to be negative, either:</p> <ol style="list-style-type: none"> $(x - 5)$ must be negative AND $(x + 1)$ must be positive; or $(x - 5)$ must be positive AND $(x + 1)$ must be negative 	<p>CASE 1</p> $x - 5 < 0 \quad \text{AND} \quad x + 1 > 0$ $x < 5 \quad \text{AND} \quad x > -1$ <p>CASE 2</p> $x - 5 > 0 \quad \text{AND} \quad x + 1 < 0$ $x > 5 \quad \text{AND} \quad x < -1$ <p>The answer is the first case, $-1 < x < 5$. The second case is not possible, as x cannot be both greater than 5 and less than -1.</p>
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REF: 010509b

- 5 ANS: 1 REF: 080326siii
 6 ANS: 1 REF: 069630siii
 7 ANS: 1 REF: 089926siii
 8 ANS: 1 REF: 060021siii
 9 ANS: 2

$x^2 - x - 12 < 0$ $(x - 4)(x + 3) < 0$ <p>For the product of these binomials to be negative, either:</p> <ol style="list-style-type: none"> $(x - 4)$ must be negative AND $(x + 3)$ must be positive; or $(x - 4)$ must be positive AND $(x + 3)$ must be negative 	<p>CASE 1</p> $x - 4 < 0 \quad \text{AND} \quad x + 3 > 0$ $x < 4 \quad \text{AND} \quad x > -3$ <p>CASE 2</p> $x - 4 > 0 \quad \text{AND} \quad x + 3 < 0$ $x > 4 \quad \text{AND} \quad x < -3$ <p>The answer is the first case, $-3 < x < 4$. The second case is not possible, as x cannot be both greater than 4 and less than -3.</p>
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REF: 010318b

- 10 ANS: 1 REF: 080125siii
 11 ANS: 4 REF: 068531siii
 12 ANS: 2 REF: 089419siii
 13 ANS: 4 REF: 019422siii
 14 ANS: 3 REF: 089631siii
 15 ANS: 2 REF: 010335siii
 16 ANS: 2 REF: 060332siii