Batch 4fad2923 — **Inequalities** — Version 1

Match the text to the math symbols.

(1) ☐ a is greater than or equal to b

(2) ☐ a is less than b

(3) ☐ a is less than or equal to b

(4) ☐ a is not equal to b

(5) ☐ a is greater than b

(A) $a \ni b$

(B) $a \in b$

(C) $a < b$

(D) $a > b$

(E) $a \leq b$

(F) $a \neq b$

(G) $a \geq b$

(H) $a \approx b$

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(6) ☐ Little league players must be at least 9 years old and no more than 12 years old. If x is the age of a little league player, then:

  A. $x \leq 9$ and $x \geq 12$
  B. $x < 9$ and $x \geq 12$
  C. $x \in 9$ and $x \ni 12$
  D. $x \geq 9$ and $x \leq 12$

(7) ☐ if $a > b$ and $b < c$, then:

  A. $a < c$
  B. $a > c$
  C. $a = c$
  D. we can say nothing about a and c

(8) ☐ Solve for x when

$$9x + 2 < 29$$

  A. $x \geq 3$
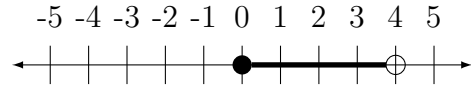 B. $x \leq 3$
  C. $x < 3$
  D. $x > 3$

(9) ☐ Select x to satisfy

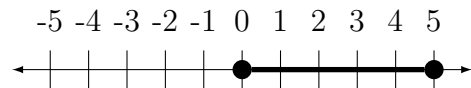$$1.5x^2 - 16.2x + 24.3 > 0$$

  A. $x = -6.4$
  B. $x = 3.7$
  C. $x = 5.2$
  D. $x = 7.2$

Select the set of inequalities which match the number line.

(10) ☐   A. $x < 0$ or $x > 4$
          B. $x > 0$ and $x < 4$
          C. $x \geq 0$ and $x < 4$
          D. $x \leq 0$ or $x \geq 4$

-5 -4 -3 -2 -1 0 1 2 3 4 5

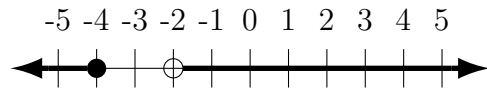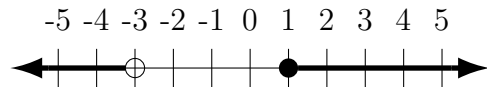(11) ☐   A. $x \geq 0$ and $x < 5$
          B. $x \leq 0$ or $x > 5$
          C. $x \geq 0$ and $x \leq 5$
          D. $x > 0$ and $x < 5$
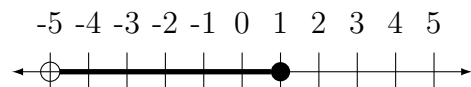
-5 -4 -3 -2 -1 0 1 2 3 4 5

(12) ☐   A. $x > -4$ and $x \leq -2$
          B. $x \geq -4$ and $x < -2$
          C. $x < -4$ or $x \geq -2$
          D. $x \leq -4$ or $x > -2$

-5 -4 -3 -2 -1 0 1 2 3 4 5

(13) ☐   A. $x \leq -3$ or $x > 1$
          B. $x < -3$ or $x \geq 1$
          C. $x \geq -3$ and $x < 1$
          D. $x \leq -3$ or $x \geq 1$

-5 -4 -3 -2 -1 0 1 2 3 4 5

(14) ☐   A. $x > -5$ and $x \leq 1$
          B. $x > -5$ and $x < 1$
          C. $x \leq -5$ or $x > 1$
          D. $x < -5$ or $x \geq 1$

-5 -4 -3 -2 -1 0 1 2 3 4 5

Batch 4fad2923   **Inequalities**   Version 2

Match the text to the math symbols.

(1) ☐ a is less than b

(2) ☐ a is greater than b

(3) ☐ a is less than or equal to b

(4) ☐ a is greater than or equal to b

(5) ☐ a is not equal to b

(A) $a > b$

(B) $a \leq b$

(C) $a \ni b$

(D) $a < b$

(E) $a \neq b$

(F) $a \approx b$

(G) $a \in b$

(H) $a \geq b$

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(6) ☐ Little league players must be at least 9 years old and no more than 12 years old. If x is the age of a little league player, then:

    A. $x \geq 9$ and $x \leq 12$
    B. $x \leq 9$ and $x > 12$
    C. $x > 9$ and $x < 12$
    D. $x > 9$ and $x \leq 12$

(7) ☐ if $a > b$ and $b < c$, then:

    A. $a < c$
    B. $a > c$
    C. $a = c$
    D.   we can say nothing about a and c

(8) ☐ Solve for x when

$$9x + 1 \in 73$$

    A. $x \geq 8$
    B. $x \leq 8$
    C. $x > 8$
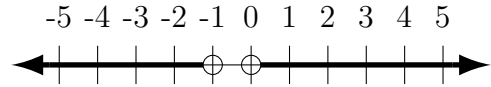   D. $x < 8$

(9) ☐ Select x to satisfy

$$9x^2 + 53.1x - 229.68 < 0$$
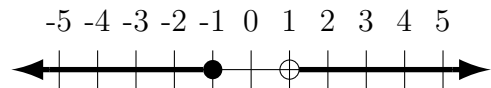
    A. $x = -8.7$
    B. $x = 0.4$
    C. $x = 1.9$
    D. $x = 4.1$

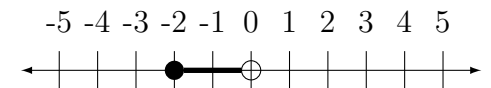Select the set of inequalities which match the number line.

(10) ☐   A. $x < -1$ or $x > 0$
          B. $x > -1$ and $x \leq 0$
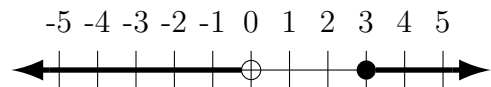   C. $x \leq -1$ or $x \geq 0$
          D. $x > -1$ and $x < 0$

-5 -4 -3 -2 -1 0 1 2 3 4 5

(11) ☐   A. $x < -1$ or $x \geq 1$
          B. $x > -1$ and $x \leq 1$
          C. $x \leq -1$ or $x > 1$
          D. $x \geq -1$ and $x \leq 1$

-5 -4 -3 -2 -1 0 1 2 3 4 5

(12) ☐   A. $x \geq -2$ and $x < 0$
          B. $x \leq -2$ or $x \geq 0$
          C. $x > -2$ and $x < 0$
          D. $x < -2$ or $x \geq 0$

-5 -4 -3 -2 -1 0 1 2 3 4 5

(13) ☐   A. $x \leq 0$ or $x \geq 3$
          B. $x \leq 0$ or $x > 3$
          C. $x < 0$ or $x > 3$
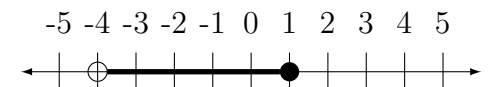   D. $x < 0$ or $x \geq 3$

-5 -4 -3 -2 -1 0 1 2 3 4 5

(14) ☐   A. $x > -4$ and $x \leq 1$
          B. $x \geq -4$ and $x \leq 1$
          C. $x < -4$ or $x > 1$
          D. $x \geq -4$ and $x < 1$

-5 -4 -3 -2 -1 0 1 2 3 4 5

Version 1

(1) C	
(2) D	
(3) E	
(4) G	
(5) F	
(6) D	(7) D
(8) C	(9) A
(10) C	
(11) C	
(12) D	
(13) B	
(14) A	

Version 2

(1) D	
(2) A	
(3) B	
(4) H	
(5) E	
(6) A	(7) D
(8) E	(9) D
(10) A	
(11) C	
(12) A	
(13) D	
(14) A	