

Algebra 1 CC, Ch 2 #513 Stds: {A-CED.A.1,A-REI.B.3}

1) $A - 2x + 10 = -9$

Algebra 1 CC, Ch 2 #516 Stds: {A-CED.A.1,A-REI.B.3}

2) $2x + 2 = 2(x + 1)$

Algebra 1 CC, Ch 2 #517 Stds: {A-CED.A.1,A-REI.B.3}

3) $x = x + 1$

Algebra 1 CC, Ch 2 #518 Stds: {A-CED.A.1,A-REI.B.3}

4) No

WORK SHOWN:

$$4(2x + 1) = 7 + 3(2x - 5), 4(2(4) + 1) = 7 + 3(2(4) - 5), 4(8 + 1) = 7 + 3(8 - 5), 4 \cdot 9 = 7 + 3 \cdot 3, 36 \neq 16$$

Algebra 1 CC, Ch 2 #537 Stds: {A-CED.A.1,A-REI.B.3}

5) $2 - 7x + 7 = 3x - 6 - 5x + 15$	<u>Distributive Law</u>
$-7x + 2 + 7 = (3x - 5x) + 15 - 6$	<u>Commutative and Associative Laws of Addition</u>
$-7x + 9 = -2x + 9$	<u>Combining like terms</u>
$-7x = -2x$	<u>Added -9 to each expression</u>
$-5x = 0$	<u>Added 2x to each expression</u>
$x = 0$	<u>Multiplied each expression by $-\frac{1}{5}$</u>

Algebra 1 CC, Ch 2 #541 Stds: {A-CED.A.1,A-REI.B.3}

6) 20

WORK SHOWN: $\frac{7}{10}x + 2 = 16, 7x + 20 = 160, 7x = 140, x = 20$

Algebra 1 CC, Ch 2 #547 Stds: {A-CED.A.1,A-REI.B.3}

7) 7

WORK SHOWN: $\frac{y+2}{3} - \frac{y+3}{4} = \frac{1}{2}, 4(y+2) - 3(y+3) = 6, 4y + 8 - 3y - 9 = 6, y - 1 = 6, y = 7$

Algebra 1 CC, Ch 2 #559 Stds: {A-CED.A.1,A-REI.B.3}

8) $k = 1$

WORK SHOWN: $5(k + 1) - k = 3(k + 2), 5k + 5 - k = 3k + 6, 4k + 5 = 3k + 6, k = 1;$

CHECK: $5(1 + 1) - 1 = 3(1 + 2), 5(2) - 1 = 3(3), 10 - 1 = 9, 9 = 9$

Algebra 1 CC, Ch 2 #604 Stds: {A-CED.A.1,A-REI.B.3}

9) $B - x > 3$

Algebra 1 CC, Ch 2 #606 Stds: {A-CED.A.1,A-REI.B.3}

10) B - $x < 10$

Algebra 1 CC, Ch 2 #611 Stds: {A-CED.A.1,A-REI.B.3}

11) Set notation: $\{x|x > 7\}$, Interval notation: $(7,\infty)$, Words: All real numbers greater than 7.

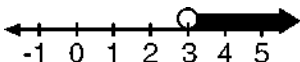
WORK SHOWN: $3x - 9 > 12$, $3x > 21$, $x > 7$

Algebra 1 CC, Ch 2 #619 Stds: {A-CED.A.1,A-REI.B.3}

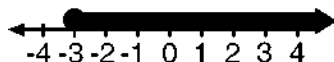
12) Set notation: $\{x|x \geq 3\}$, Interval notation: $[3,\infty)$, Words: All real numbers greater than or equal to 3.

WORK SHOWN: $3x + 7 \leq 6x - 2$, $9 \leq 3x$, $x \geq 3$

Algebra 1 CC, Ch 2 #636 Stds: {A-CED.A.1,A-REI.B.3}

13) A - 

Algebra 1 CC, Ch 2 #639 Stds: {A-CED.A.1,A-REI.B.3}

14) C - 

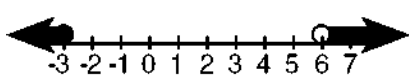
Algebra 1 CC, Ch 2 #696 Stds: {A-REI.B.3}

15) C - $(1,4]$

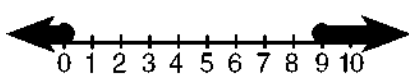
Algebra 1 CC, Ch 2 #699 Stds: {A-REI.B.3}

16) D - $[-4,1]$

Algebra 1 CC, Ch 2 #700 Stds: {A-REI.B.3}

17) D - 

Algebra 1 CC, Ch 2 #702 Stds: {A-REI.B.3}

18) D - 

Algebra 1 CC, Ch 2 #707 Stds: {A-REI.B.3}

19) $x < 9$ or $x > 1$

Algebra 1 CC, Ch 2 #712 Stds: {A-REI.B.3}

20) $6 < x \leq 10$ OR $x > 6$ and $x \leq 10$

Algebra 1 CC, Ch 2 #713 Stds: {A-REI.B.3}

21) $x \leq -2$ or $x \geq 3$

Algebra 1 CC, Ch 2 #715 Stds: {A-REI.B.3}

22) $\left\{ d \mid -1 < d < -\frac{2}{5} \right\}$

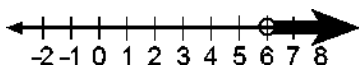
WORK SHOWN: $6 > 3(4 + 5d) > -3$, $6 > 3(4 + 5d)$, $6 > 12 + 15d$, $-15d < 6$, $d < -\frac{2}{5}$ and $3(4 + 5d) > -3$, $12 + 15d > -3$, $15d > -15$, $d > -1$

Algebra 1 CC, Ch 2 #720 Stds: {A-REI.B.3}

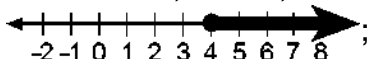
23) $\{x \mid x \text{ is a real number}\}$

WORK SHOWN: $3x - 1 < 2(x + 4)$, $3x - 1 < 2x + 8$, $x < 9$ or $7x - 3 \geq 2(x + 1)$, $7x - 3 \geq 2x + 2$, $5x \geq 5$, $x \geq 1$; $x < 9$ or $x \geq 1$

Algebra 1 CC, Ch 2 #732 Stds: {A-REI.B.3}

24) Part A: $\{x \mid x > 6\}$, 

WORK SHOWN: $2x + 3 \geq 11$, $2x \geq 8$, $x \geq 4$ and $3(x - 1) > 15$, $3x - 3 > 15$, $3x > 18$, $x > 6$; $x > 6$;

Part B: $\{x \mid x \geq 4\}$, ;

Part C: SAMPLE ANSWER: In Part A, real number greater than 6 will make both inequalities composing the conjunction true. In Part B, the disjunction is true when either one of the inequalities is true, therefore real number greater than or equal to 4.

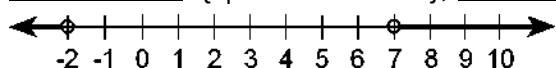
Algebra 1 CC, Ch 2 #738 Stds: {A-REI.B.3}

25) Set notation: $\{ \}$, Interval notation: $\emptyset$, Graph: no graph

WORK SHOWN: $-7 \geq 1 - 4x \geq 1$, $(-7 - 1) \geq -4x \geq (1 - 1)$, $-8 \geq -4x \geq 0$, $2 \leq x \leq 0$, $x \leq 0$ and $x \geq 2$; $\emptyset = \{ \}$

Algebra 1 CC, Ch 2 #739 Stds: {A-REI.B.3}

26) Set notation: $\{z \mid z < -2 \text{ or } z > 7\}$, Interval notation: $(-\infty, 2) \cup (7, \infty)$, Graph:



WORK SHOWN: $z - 5 > 2$, $z > 7$ or $4 + z < 2$, $z < -2$; $z < -2$ or $z > 7$

Algebra 1 CC, Ch 2 #958 Stds: {A-CED.A.4}

27) D - $\frac{5a-2b}{7}$

Algebra 1 CC, Ch 2 #971 Stds: {A-CED.A.4}

28) $m = \frac{T}{f-g}$

WORK SHOWN: $T = fm - gm$, $T = (f - g)m$, $m = \frac{T}{f-g}$

Algebra 1 CC, Ch 2 #973 Stds: {A-CED.A.4}

29) $C = \frac{5}{9} (F - 32)$

WORK SHOWN: $F = \frac{9}{5} C + 32$, $F - 32 = \frac{9}{5} C$, $C = \frac{5}{9} (F - 32)$

Algebra 1 CC, Ch 2 #976 Stds: {A-CED.A.4}

30) $r = \pm \sqrt{\frac{V}{\pi h}}$

WORK SHOWN: $V = \pi r^2 h, \frac{V}{\pi h} = r^2, r = \pm \sqrt{\frac{V}{\pi h}}$

Algebra 1 CC, Ch 2 #997

31) Statement: $\frac{2}{x-1} = \frac{6}{2x+1}, x \neq 1, x \neq -\frac{1}{2}$; Solution set: {4}

WORK SHOWN: $\frac{2}{x-1} = \frac{6}{2x+1}, 4x + 2 = 6x - 6, 8 = 2x, x = 4$

Algebra 1 CC, Ch 1 #1

32) B - Distributive Property of Multiplication Over Subtraction

Algebra 1 CC, Ch 1 #4

33) B - Commutative Property for Multiplication

Algebra 1 CC, Ch 1 #11

34) A - $5xy + 4z = 4z + 5xy$

Algebra 1 CC, Ch 1 #13

35) C - $((a + b) + (c - d)) + (e + f) = (a + b) + ((c - d) + (e + f))$

Algebra 1 CC, Ch 1 #17

36) C - Commutative Property for Multiplication

Algebra 1 CC, Ch 1 #28

37) Commutative Property of Addition

Algebra 1 CC, Ch 1 #29

38) Commutative Property of Multiplication

Algebra 1 CC, Ch 1 #39

39) Commutative Property for Multiplication

Algebra 1 CC - Supplement, Ch 2 #90

40) $x \leq \frac{10b}{(b-a)}$ OR $x \leq \frac{-10b}{(a-b)}$

WORK SHOWN: $b(x - 3) \geq ax + 7b, bx - 3b \geq ax + 7b, bx - ax \geq 7b + 3b, (b - a)x \geq 10b, x \leq \frac{10b}{(b-a)}$ OR $x \leq \frac{-10b}{(a-b)}$

Algebra 1 CC - Supplement, Ch 2 #92

41) (a) $b_1 = \frac{2A}{h} - b_2$

WORK SHOWN: $A = \frac{1}{2} h(b_1 + b_2)$, $\frac{A}{\frac{1}{2}h} = b_1 + b_2$, $\frac{2A}{h} = b_1 + b_2$, $b_1 = \frac{2A}{h} - b_2$;

(b) 8 ft

WORK SHOWN: $b_1 = \frac{2A}{h} - b_2$, $b_1 = \frac{2(60)}{6} - 12 = \frac{120}{6} - 12 = 20 - 12 = 8$

Integrated Algebra - Supplement, Ch 5 #91

42) A - 6

Integrated Algebra, Ch 5 #520

43) B - $\{-3\}$

Integrated Algebra, Ch 5 #540

44) B - 7

Integrated Algebra, Ch 5 #579

45) $s = 7$

Integrated Algebra, Ch 5 #587

46) $z = 17$