Name: _____ **Class:** _____ **Date:** _____ **ID: X**

Alg 1 Topic 1.2 to 1.6 Test Practice 2019-2020

What is the solution of the equation?

____ 1. $16 = -d + 6$

a. 10 b. –10 c. –9 d. –15

____ 2. $\frac{b+6}{5} = 10$

a. 44 b. –4 c. 56 d. 8

____ 3. $3(y-5)+2=5$

a. 4 b. 7 c. –4 d. 6

____ 4. $\frac{3p}{5} + \frac{8}{5} = 1$

a. 15 b. 2 c. –10 d. –1

____ 5. $6x - 3 = 5x - 5$

a. –4 b. –2 c. 0 d. –1

____ 6. $-4x - 9 = -5 - 6x$

a. 4 b. 1 c. –1 d. 2

What is the solution of each equation?

____ 7. $2(h-8) - h = h - 16$

a. 8
b. –8
c. infinitely many solutions
d. no solution

____ 8. $2 + 3z = 5 + 3z$

a. $-\frac{1}{2}$
b. infinitely many solutions
c. no solution
d. $2\frac{1}{3}$

____ 9. What equation do you get when you solve $ky - bf = \frac{fy}{m}$ for y?

a. $y = \frac{bfm}{km-f}$
b. $y = \frac{m(ky-bf)}{f}$
c. $y = -\frac{bfm}{km-f}$
d. $y = -\frac{m(ky-bf)}{f}$

Name: _____ **ID: X**

____ 10. What equation do you get when you solve $z - m = z + bx$ for x?

a. $x = -\dfrac{2z + m}{b}$

c. $x = -\dfrac{m}{b}$

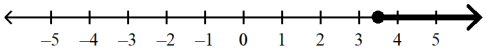
b. $x = -\dfrac{b}{m}$

d. $x = \dfrac{2z - m}{b}$

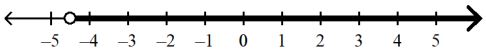
What is the graph of the inequality?

____ 11. $k > \dfrac{9}{2}$

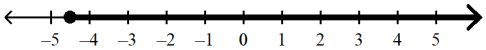
a.



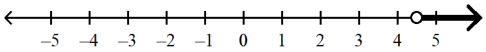
b.



c.

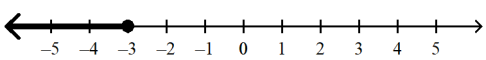


d.

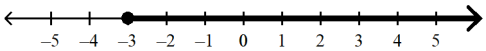


____ 12. $x \geq -3$

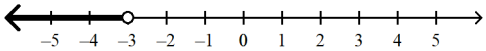
a.



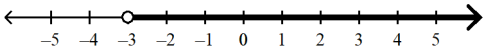
b.



c.

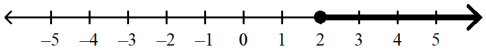


d.

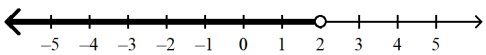


____ 13. $d < 2$

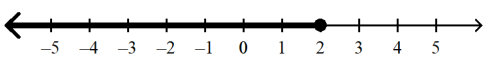
a.



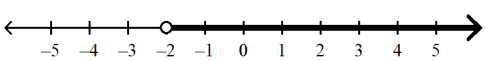
b.



c.

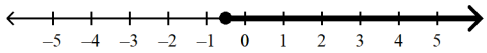


d.

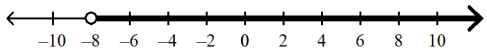


Name: _____ **ID: X**

What inequality represents the graph?

____ 14. 

a. $m \leq -\frac{1}{2}$ b. $m > -\frac{1}{2}$ c. $m \geq -\frac{1}{2}$ d. $m \geq \frac{1}{2}$

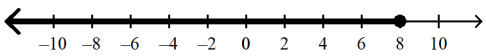
____ 15. 

a. $x \leq -8$ b. $x < -8$ c. $x > -8$ d. $x < 8$

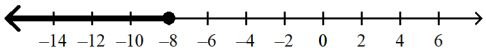
What are the solutions of the inequality? Graph the solutions.

____ 16. $y - 6 \leq 2$

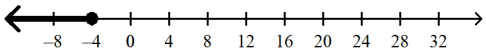
a. $y \leq 8$



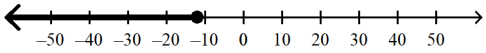
b. $y \leq -8$



c. $y \leq -4$

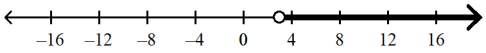


d. $y \leq -12$

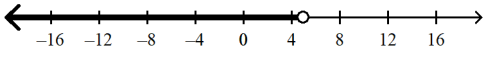


____ 17. $n + 4 > -1$

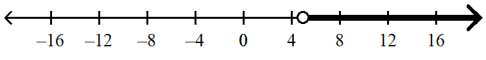
a. $n > 3$



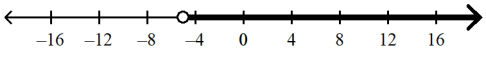
b. $n < 5$



c. $n > 5$

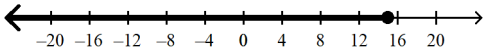


d. $n > -5$

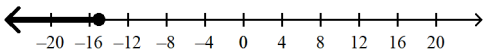


____ 18. $x + 7 \leq -8$

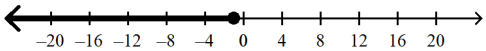
a. $x \leq 15$



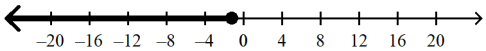
b. $x \leq -15$



c. $x \leq -1$



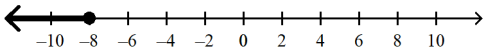
d. $x \leq -\frac{8}{7}$



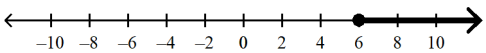
What are the solutions of the inequality? Graph and check the solutions.

____ 19. $-\frac{x}{4} \leq 2$

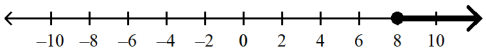
a. $x \leq -8$



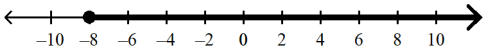
b. $x \leq 6$



c. $x \geq 8$



d. $x \geq -8$

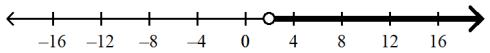


Name: _____ **ID: X**

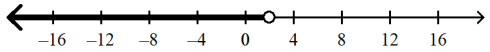
What are the solutions of the inequality? Graph the solutions.

____ 20. $-12r < -24$

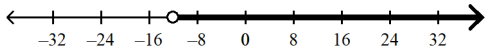
a. $r > 2$



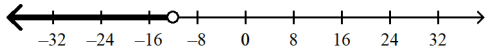
b. $r < 2$



c. $r > -12$



d. $r < -12$



What are the solutions of the inequality?

____ 21. $-2(3x + 2) \geq -6x - 4$

a. $x \geq 0$
b. $x \leq 6$
c. all real numbers
d. no solution

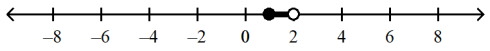
____ 22. $10x - 10 - 7x \geq 3x - 2$

a. $x \geq -8$
b. $x \leq 8$
c. all real numbers
d. no solution

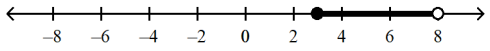
What are the solutions of the compound inequality? Graph the solutions.

____ 23. $-2 \leq 2x - 4 < 8$

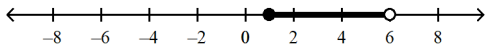
a. $1 \leq x < 2$



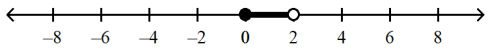
b. $3 \leq x < 8$



c. $1 \leq x < 6$



d. $0 \leq x < 2$



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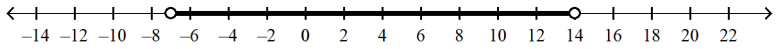
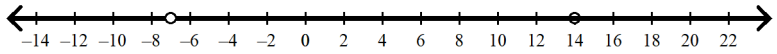
What compound inequality represents the phrase? Graph the solutions.

____ 24. all real numbers w that are less than –7 or greater than 14

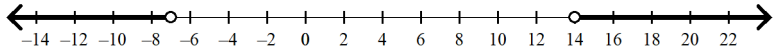
a. $-7 < w < 14$



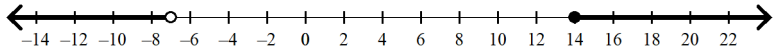
b. $w < 14$ or $w > -7$



c. $w < -7$ or $w > 14$

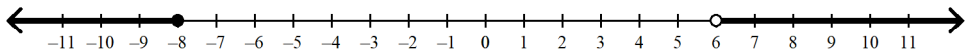


d. $w < -7$ or $w \geq 14$

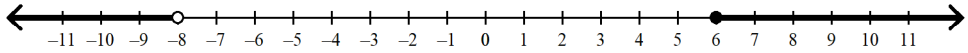


____ 25. What is the graph of $x < -8$ or $x > 6$?

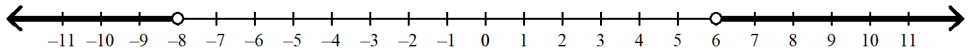
a.



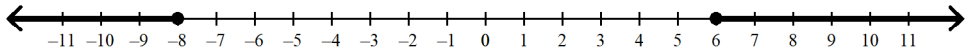
b.



c.



d.



Alg 1 Topic 1.2 to 1.6 Test Practice 2019-2020
Answer Section

1. ANS: B PTS: 1 DIF: L2 REF: 1-2 Solving Linear Equations
   OBJ: 1-2.1 Explain that each step in solving a linear equation follows from the equality in the previous step.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-2 Example 1 Solve Linear Equations
   KEY: equation in one variable | isolate | inverse operations
2. ANS: A PTS: 1 DIF: L3 REF: 1-2 Solving Linear Equations
   OBJ: 1-2.1 Explain that each step in solving a linear equation follows from the equality in the previous step.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-2 Example 1 Solve Linear Equations
   KEY: equation in one variable | isolate | inverse operations
3. ANS: D PTS: 1 DIF: L3 REF: 1-2 Solving Linear Equations
   OBJ: 1-2.2 Create and solve linear equations with one variable using the properties of equality.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-2 Example 4 Use Linear Equations to Solve Problems
   KEY: Distributive Property | equation in one variable | inverse operations
4. ANS: D PTS: 1 DIF: L3 REF: 1-2 Solving Linear Equations
   OBJ: 1-2.2 Create and solve linear equations with one variable using the properties of equality.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-2 Example 4 Use Linear Equations to Solve Problems
   KEY: equation in one variable | inverse operations
5. ANS: B PTS: 1 DIF: L3
   REF: 1-3 Solving Equations with a Variable on Both Sides
   OBJ: 1-3.1 Use the properties of equality to solve linear equations with a variable on both sides.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-3 Example 1 Solving Equations With a Variable on Both Sides
   KEY: equation in one variable | inverse operations | like terms
6. ANS: D PTS: 1 DIF: L3
   REF: 1-3 Solving Equations with a Variable on Both Sides
   OBJ: 1-3.1 Use the properties of equality to solve linear equations with a variable on both sides.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-3 Example 1 Solving Equations With a Variable on Both Sides
   KEY: equation in one variable | inverse operations | like terms
7. ANS: C PTS: 1 DIF: L3
   REF: 1-3 Solving Equations with a Variable on Both Sides
   OBJ: 1-3.2 Identify whether linear equations have one solution, infinitely many solutions, or no solution.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-3 Example 2 Understand Equations With Infinitely Many or No Solutions
   KEY: identity | no solution
8. ANS: C PTS: 1 DIF: L3
   REF: 1-3 Solving Equations with a Variable on Both Sides
   OBJ: 1-3.2 Identify whether linear equations have one solution, infinitely many solutions, or no solution.
   NAT: HSA.CED.A.1| HSA.REI.A.1| HSA.REI.B.3
   TOP: 1-3 Example 2 Understand Equations With Infinitely Many or No Solutions
   KEY: identity | no solution

9. ANS: A PTS: 1 DIF: L4 REF: 1-4 Literal Equations and Formulas
OBJ: 1-4.1 Rearrange formulas and equations to highlight a quantity of interest by isolating the variable using the same reasoning used to solve equations.
NAT: HSN.Q.A.1| HSA.CED.A.1| HSA.CED.A.4| HSA.REI.A.1| HSA.REI.B.3
TOP: 1-4 Example 1 Rewrite Literal Equations KEY: literal equation
10. ANS: C PTS: 1 DIF: L3 REF: 1-4 Literal Equations and Formulas
OBJ: 1-4.1 Rearrange formulas and equations to highlight a quantity of interest by isolating the variable using the same reasoning used to solve equations.
NAT: HSN.Q.A.1| HSA.CED.A.1| HSA.CED.A.4| HSA.REI.A.1| HSA.REI.B.3
TOP: 1-4 Example 1 Rewrite Literal Equations KEY: literal equation
11. ANS: D PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: solution of an inequality
12. ANS: B PTS: 1 DIF: L2
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: solution of an inequality
13. ANS: B PTS: 1 DIF: L2
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: solution of an inequality
14. ANS: C PTS: 1 DIF: L2
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: solution of an inequality
15. ANS: C PTS: 1 DIF: L2
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: solution of an inequality
16. ANS: A PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.CED.A.1| HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: equivalent inequalities
17. ANS: D PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.CED.A.1| HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: create inequalities in one variable | problem solving
18. ANS: B PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.CED.A.1| HSA.REI.B.3
TOP: 1-5 Example 1 Solve Inequalities KEY: equivalent inequalities
19. ANS: D PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable.
NAT: HSN.Q.A.2| HSA.CED.A.1| HSA.REI.B.3 TOP: 1-5 Example 1 Solve Inequalities

20. ANS: A PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable.
NAT: HSN.Q.A.2| HSA.CED.A.1| HSA.REI.B.3 TOP: 1-5 Example 1 Solve Inequalities
21. ANS: C PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.CED.A.1| HSA.REI.B.3
TOP: 1-5 Example 2 Solve an Inequality With Variables on Both Sides
22. ANS: D PTS: 1 DIF: L3
REF: 1-5 Solving Inequalities in One Variable
OBJ: 1-5.1 Create and solve inequalities in one variable. NAT: HSA.CED.A.1| HSA.REI.B.3
TOP: 1-5 Example 2 Solve an Inequality With Variables on Both Sides
23. ANS: C PTS: 1 DIF: L3 REF: 1-6 Compound Inequalities
OBJ: 1-6.2 Interpret the solution to a compound inequality within a modeling context.
NAT: HSA.CED.A.1| HSA.REI.B.3
TOP: 1-6 Example 3 Solve a Compound Inequality Involving And
KEY: compound inequality
24. ANS: C PTS: 1 DIF: L3 REF: 1-6 Compound Inequalities
OBJ: 1-6.2 Interpret the solution to a compound inequality within a modeling context.
NAT: HSA.CED.A.1| HSA.REI.B.3 TOP: 1-6 Example 1 Understand Compound Inequalities
KEY: compound inequality | create inequalities in one variable
25. ANS: C PTS: 1 DIF: L3 REF: 1-6 Compound Inequalities
OBJ: 1-6.2 Interpret the solution to a compound inequality within a modeling context.
NAT: HSA.CED.A.1| HSA.REI.B.3
TOP: 1-6 Example 2 Solve a Compound Inequality Involving Or
KEY: compound inequality