

**Math 7 Unit 4B Pretest****Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. Find a solution to the inequality  $x > 2$ .
- a. 2                      b. -2                      c. 0                      d. 8
- \_\_\_\_\_ 2. Find a number that is NOT a solution of the inequality  $x - 9 \leq 8$ .
- a. -8                      c. 17  
b. -1                      d. 20
- \_\_\_\_\_ 3. Which inequality has 10 as a solution?
- a.  $12 + m < -6$       b.  $-6 + m > 12$       c.  $12 + m = -6$       d.  $-6 + m < 12$
- \_\_\_\_\_ 4. Write an inequality to model the situation: The number  $n$  of people who applied for the job was at most 11.
- a.  $n \geq 11$               b.  $n \leq 11$               c.  $n > 11$               d.  $n < 11$

**Solve the inequality.**

- \_\_\_\_\_ 5.  $-9n \leq 54$
- a.  $n \geq -6$               b.  $n \leq -6$               c.  $n \geq -5$               d.  $n \geq 6$
- \_\_\_\_\_ 6.  $5z - 5 > -25$
- a.  $z < -4$               b.  $z > -4$               c.  $z > -6$               d.  $z < 0$

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\_\_\_\_\_ 7.  $x + 8 \geq 1$

a.  $x \geq -7$

b.  $x \geq -9$

c.  $x \geq 9$

d.  $x \geq 7$

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

a.  $x \geq -49$

b.  $x \leq 0$

c.  $x \leq -49$

d.  $x \geq -14$

\_\_\_\_\_ 9. The difference between a number  $x$  and 3 is at least 17. Write and solve an inequality.

a.  $x + 3 \geq 17; x \geq 14$

c.  $x - 3 \geq 17; x \geq 14$

b.  $x - 3 \geq 17; x \geq 20$

d.  $x - 3 \leq 17; x \leq 20$

\_\_\_\_\_ 10. Paul earns \$5 per hour working after school. He needs more than \$420 for a stereo system. Write and solve an inequality that describes the number of hours  $h$  he must work to reach his goal.

a.  $420h > 5$ ; at least 84 hours

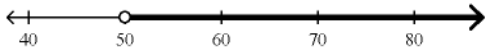
c.  $5h < 420$ ; more than 84 hours

b.  $5h \geq 420$ ; at least 84 hours

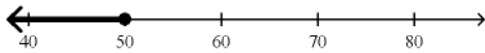
d.  $5h > 420$ ; more than 84 hours

\_\_\_\_\_ 11. The number of words  $w$  Tina can type per minutes is at least 50. Write and graph an inequality to describe this situation.

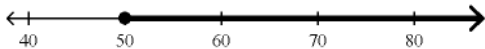
a.  $x \geq 50$ ;



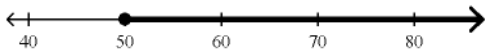
b.  $x \leq 50$ ;



c.  $x \geq 50$ ;



d.  $x > 50$ ;



\_\_\_\_\_ 12. Nikki makes \$10.50 an hour working at Current Electronics. She plans to buy a DVD recorder that costs \$286.60. Write and solve an inequality describing how many hours  $h$  Nikki will have to work to be able to buy the DVD recorder.

a.  $286.60 + h \geq 10.50$ ; 30 hours

c.  $10.50h \geq 286.60$ ; 28 hours

b.  $286.60h \geq 10.50$ ; 29 hours

d.  $286.60 - h \geq 10.50$ ; 27 hours

\_\_\_\_\_ 13. Greg has \$435.00. A DVD player costs \$152.00, and he can purchase used movies for \$13.60 each. What is the greatest number of movies Greg can buy if he also buys a DVD player?

a. at most 21

c. at most 44

b. at most 20

d. at most 32

### Short Answer

**Solve the inequality.**

14.  $-10z \leq 10$

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15.  $2z + 5 \leq -17$

16.  $2z \geq -22$

**Graph the solution of the inequality.**

17.  $y + 3 > -7$

18.  $\frac{x}{-6} < 4$

19. Your class collected at most 300 cans of food for the annual food drive. In the first week, 155 cans were collected. How many cans  $c$  of food were collected in the second week? Write and solve an inequality.

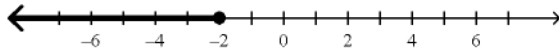
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**Solve the inequality. Graph the solution.**

20.  $2z \leq 12$

21. Write an inequality for the graph.



22. Darlene spent \$15.25 on supplies to make lemonade. How many glasses of lemonade must she sell at \$0.65 per glass to make a profit? Write an inequality and solve.