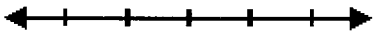
Name: _____ Class: _____ Date: _____ ID: A

Algebra I - chapter 6 practice quiz, lessons 1 - 4

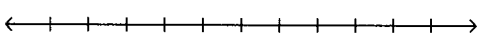
1. Tina can type at least 40 words per minute. Write and graph an inequality to describe this statement.



2. Write the inequality illustrated by the graph below.

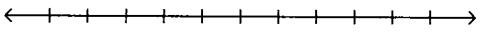
Graph the solution.

3. $x - 2 \geq 2$



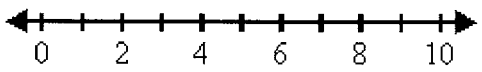
4. In order to collect a salary bonus, baseball player Tony Jones must get at least 300 hits this season. In the second to last week of the season, Tony started with 272 hits and got 22 more. Write and solve an inequality that describes how many hits Tony must get in the season's last week.

5. Solve the inequality. Graph your solution. $-3x < -12$



Solve and graph.

6. $-12y < -60$



____ 7. Lev earns $5.65 per hour working after school. He needs at least $245 for a stereo system. Write and solve an inequality that describes how many hours he must work to reach his goal.

a. $x + 5.65 \geq 245$
$x \geq 44$ hours

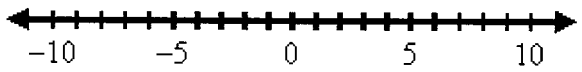
b. $5.65\ x \geq 245$
$x \geq 44$ hours

c. $245 \div x \geq 5.65$
$x \geq 43$ hours

d. $5.65\ x \geq 245$
$x \geq 45$ hours

Solve the inequality.

8. $4x + 5 \geq 2(x + 2)$. Graph your solution.



9. Solve the inequality $1 - \frac{1}{3}x > 3$.

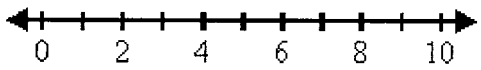
Solve the inequality, if possible.

10. $7x + 8 \leq 35(0.2x + 1)$

11. $10 + 5x > 5(3 + x)$

Solve and graph.

12. $-8p + 11 > -5$



Solve.

13. $8b - 9 \leq 9b + 2$

____ 14. Joel sells ice cream cones at the county fair. He has to rent the equipment for $36 and spend $0.52 on ingredients for each cone. What is the minimum number of ice cream cones Joel must sell at $1.40 each in order to make a profit?

a. 41 b. 39 c. 42 d. 40

15. Solve $-6 \leq 3x - 15 \leq 12$. Graph your solution.

Solve. Graph your solution.

16. $x + 3 \leq 5$ and $-3x < 12$

17. Solve the inequality $-2 < 1 + x \leq 2$. Graph your solution.

18. Solve the inequality $-3 > 2x - 1 > -5$. Graph your solution.

19. Solve the inequality $-2 < 1 - 2x \leq 2$. Graph your solution.

Solve the inequality.

20. $3x < 8$ or $4x \geq 4$

21. $2x \geq 8$ or $-2x + 1 > -13$

22. $x + 5 \leq 6$ or $-6x < -54$

____ 23. Your veterinarian tells you that a healthy weight for your dog is between 70 and 80 pounds. Which inequality represents your dog's healthy weight w in *kilograms*?

a. $w \leq 36.4$
b. $154 \leq w \leq 176$
c. $31.8 \leq w \leq 36.4$
d. $w \geq 154$

Algebra I - chapter 6 practice quiz, lessons 1 - 4
Answer Section

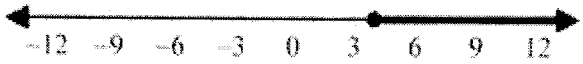
1. ANS:
$x \geq 40$;

BNK: 6.1 Solve Inequalities Using Addition and Subtraction

2. ANS:
$x > -2$

BNK: 6.1 Solve Inequalities Using Addition and Subtraction

3. ANS:



BNK: 6.1 Solve Inequalities Using Addition and Subtraction

4. ANS:
$x + 272 + 22 \geq 300$
$x \geq 6$ hits

BNK: 6.1 Solve Inequalities Using Addition and Subtraction

5. ANS:
$x > 4$

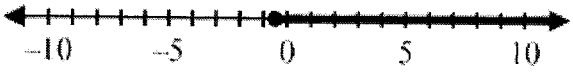
BNK: 6.2 Solve Inequalities Using Multiplication and Division

6. ANS:
$y > 5$

BNK: 6.2 Solve Inequalities Using Multiplication and Division

7. ANS: B BNK: 6.2 Solve Inequalities Using Multiplication and Division

8. ANS:



BNK: 6.3 Solve Multi-Step Inequalities

9. ANS:
$x < -6$

BNK: 6.3 Solve Multi-Step Inequalities

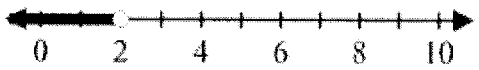
10. ANS:
All real numbers

BNK: 6.3 Solve Multi-Step Inequalities

11. ANS:
No solutions

BNK: 6.3 Solve Multi-Step Inequalities

12. ANS:
$p < 2$



BNK: 6.3 Solve Multi-Step Inequalities

13. ANS:
$b \geq -11$

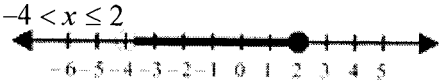
BNK: 6.3 Solve Multi-Step Inequalities

14. ANS: A BNK: 6.3 Solve Multi-Step Inequalities

15. ANS:
$3 < x < 9$

BNK: 6.4 Solve Compound Inequalities

16. ANS:
$-4 < x \leq 2$

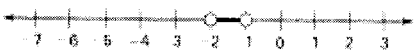


BNK: 6.4 Solve Compound Inequalities

17. ANS:
$-3 < x \leq 1$

BNK: 6.4 Solve Compound Inequalities

18. ANS:
$-2 < x < -1$



BNK: 6.4 Solve Compound Inequalities

19. ANS:

$$-\frac{1}{2} \le x < \frac{3}{2}$$

BNK: 6.4 Solve Compound Inequalities

20. ANS:
All real numbers

BNK: 6.4 Solve Compound Inequalities

21. ANS:
All real numbers

BNK: 6.4 Solve Compound Inequalities

22. ANS:
$x \le 1$ or $-6x < -54$

BNK: 6.4 Solve Compound Inequalities

23. ANS: C BNK: 6.4 Solve Compound Inequalities