

Algebra 1 Chapter 3 Review Fall 2014

Write an inequality to model each statement:

1. The team needs at least 42,000 fans to show up for the last game to break the attendance record.
2. You can take no more than 45 minutes to complete the test.
3. In order to make a profit the dealer needs to sell a minimum of 35 cars this month.
4. The restaurant can seat up to 120 people at a time.
5. The maximum score on the SAT test is 1600.
6. To be a pilot your standing height must be between 62 inches and 77 inches.
7. To get a discount movie ticket you can be no more than 10 years old or must be at least 60 years old.

Graph each inequality on a number line.

8. $y \geq -3$

9. $m < 5$

10. $-1 > c$

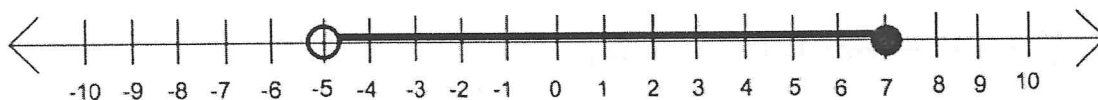
11. $x > 2$ and $x \leq 9$

12. $Q < -1$ or $Q > 4$

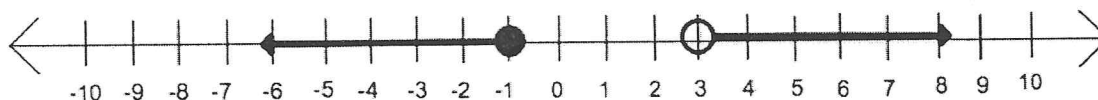
13. $-6 \leq a < 0$

Model each graph with an inequality.

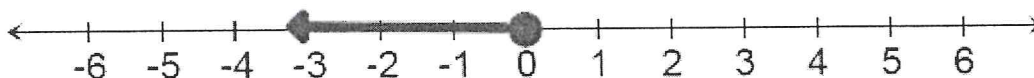
14.



15.



16.



Solve each inequality.

17. $9 - 4x \geq 29$

18. $-7 + 2(w - 3) < -42$

19. $m + 8 - 4m \leq 2m + 6 - m - 12$

20. $4k + 3(k - 1) > 6(k - 2) + 9 + k$

21. $5 + 2(3m - 4) - 8m \leq 7 - 4(m + 1) - 15$

22. $-12 + \frac{6}{11}c < -24$

23. $-3w + 9 - 7w \geq -6w + 15$

$$24. 6 + 2(h - 5) + h < 4h - 3 - h + 7$$

$$25. 27 - \frac{p}{3} \geq 15$$

$$26. 3a < -30 \quad \text{or} \quad 2 - 4a < 26$$

$$27. 47 \leq 2x - 9 \leq 103$$

$$28. \frac{2}{3}q > 8 \quad \text{and} \quad 5q + 1 < 126$$

Algebra 1 Chapter 3 Review ANSWERS Fall 2014

$$1. F \geq 42,000$$

$$2. m \leq 45$$

$$3. c \geq 35$$

$$4. p \leq 120$$

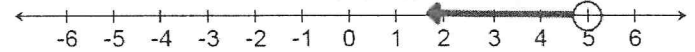
$$5. S \leq 1600$$

$$6. 62 < h < 77$$

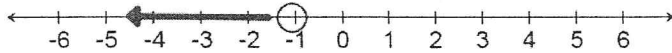
$$7. a \leq 10 \quad \text{or} \quad a \geq 60$$

8.

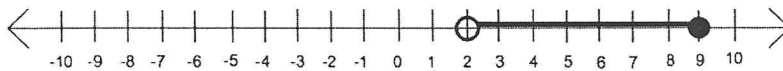
9.



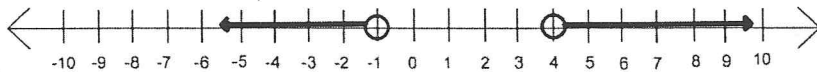
10.



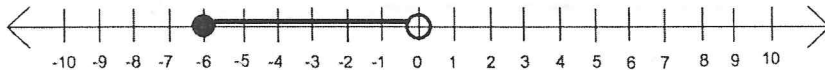
11.



12.



13.



$$14. -5 < x \leq 7 \text{ which could also be written as } x > -5 \quad \text{and} \quad x \leq 7$$

$$15. x \leq -1 \quad \text{or} \quad x > 3$$

$$16. a \leq 0$$

$$17. x \leq -5$$

$$18. w < -14.5$$

$$19. 3.5 \leq m \text{ or } m \geq 3.5$$

20. No Solution

$$21. m \leq -4.5$$

$$22. c < -22$$

$$23. -1.5 \geq w \text{ or } w \leq -1.5$$

$$24. \text{All real numbers}$$

$$25. p \leq 36$$

$$26. a < -10 \quad \text{or} \quad a > -6$$

$$27. 28 \leq x \leq 56$$

$$28. q > 12 \quad \text{and} \quad q < 25 \quad \text{which can also be written as } 12 < q < 25$$