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Unit 2: INEQUALITIES Study Guide

Which list only contains numbers that are solutions to the inequality?

1. $\frac{-1}{2} - a \leq \frac{3}{4}$

a) $-1\frac{1}{4},\ -2,\ -3.5$
b) $-1\frac{1}{4},\ -1,\ 1$
c) $1\frac{1}{4},\ 0,\ -1$

2. $-120 + b > -20$

a) $100,\ 120,\ 130$
b) $90,\ 89,\ 80$
c) $101,\ 105,\ 120$

Solve the inequalities:

3. $-2x + 3 \geq 3$

4. $\frac{k}{2} + 1 < 5$

5. $14h - 23 \leq 19$

6. $15 - 8x > 63$

7. $\frac{f}{7} - 18 \leq 21$

8. $7z + 62 < -8$

Solve and Graph the inequalities:

9. $15 + 3v \leq 90$

10. $2c - 9 > 7$

11. $-6d - 4 < 20$

12. $4p + 8 \geq 52$

Solve the word problems:

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13. Daniel had $25 to spend at the fair. If the admission to the fair is $4 and the rides cost $1.50 each, what is the greatest number of rides Daniel can go on?

A. Write an inequality that represents Daniel's situation.

B. How many rides can Daniel go on?.

C. Graph the solutions on a number line.

15. Kevin has $25. MP3 downloads cost $0.75 each. How many songs can he download and still have $13 left to spend?

A. Write an inequality that represents Kevin's situation.

B. How many downloads can Kevin purchase?

C. Graph the solution on a number line.

14. The seventh grade class is putting on a variety show to raise money. It cost $700 to rent the banquet hall that they are going to use. If they charge $15 for each ticket, how many tickets do they need to sell in order to raise at least $1000?

A. Write an inequality that represents the situation.

B. How many tickets do they need to sell?

C. Graph the solution on a number line.

16. Triniti had $500 in a saving account at the beginning of the summer. She wants to have at least $200 in the account by the end of the summer. She withdraws $25 each week for food, clothes, and movie tickets.

A. Write an inequality that represents Triniti's situation.

B. How many weeks can Triniti withdraw money from her account. Justify your answer.

C. Graph the solution on a number line