



NAME _____

Module 6 Solving Absolute Value Equations and Inequalities

Lesson 3 Solving Inequalities Using “Absolute Value is Less Than”

Solve each inequality and graph the solution set.

1. $|j| \leq -1$ \emptyset _____



2. $|b| < 3.5$ $-3.5 < b < 3.5$ _____



3. $|y + 2| \leq 4$ $-6 \leq y \leq 2$ _____



4. $|\frac{1}{2}q| \leq \frac{5}{4}$ $-2.5 \leq q \leq 2.5$ _____



5. $|w - 1| < 4$ $-3 < w < 5$ _____



6. $|2s + 3| \leq 2$ $-2\frac{1}{2} \leq s \leq -\frac{1}{2}$ _____



7. $|\frac{y}{2} + 1| < 2$ $-6 < y < 2$ _____



8. $|4r - 9| \leq 1$ $2 \leq r \leq 2.5$ _____



9. $|8d + 5| \leq 11$ $-2 \leq d \leq \frac{3}{4}$ _____



10. $9|z| < 27$ $-3 < z < 3$ _____



11. $|c + 2| - 3 \leq 0$ $-5 \leq c \leq 1$ _____



12. $|\frac{7h - 1}{12}| < 0$ \emptyset _____



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13. $5 + \left| \frac{p}{2} + 1 \right| \leq 4$ **No Solution** _____



14. $3|2j - 1| \leq 9$ **$-1 \leq b \leq 2$** _____



Match the graph to the correct inequality.



- A. $|x - 2| \leq 2$
- B. $|x| \leq 2$**
- C. $|x + 2| \leq -2$
- D. $|x| < 2$



- A. $|x - 3| \leq 2$**
- B. $|x - 2| \leq 3$
- C. $|x - 5| \leq 1$
- D. $|x - 2| \leq 3$



- A. $|x - 3| \leq 3$
- B. $|3x| \leq 1$
- C. $|x - 3| < 3$
- D. $\left| \frac{x}{3} \right| < 1$**



- A. $-5|y| < 5$
- B. $4|y| < 20$
- C. $4|y| \leq 20$**
- D. $-5|y| \leq 5$



- A. $|2j - 1| < 3$
- B. $|2j - 2| < 2$
- C. $|2j - 1| \leq 3$**
- D. $|2j + 2| < 2$



- A. $|x - 2| < 1.5$**
- B. $|2x| < 5$
- C. $|x - 2| < 2$
- D. $\left| \frac{x}{2} \right| < 1.5$