

3-7c**Homework Practice**

Absolute Value Equations and Inequalities

Solve and graph each inequality.

1. $|x| > 1$

2. $|x| < 2$

3. $|x + 3| < 10$

4. $|y + 4| > 12$

5. $|y - 1| \leq 8$

6. $|p - 6| \geq 5$

7. $|3c - 4| > 12$

8. $\left| 2t + \frac{2}{3} \right| \leq 4$

Write an absolute value inequality that represents each set of numbers.

9.) all real numbers less than 3 units from 0

10.) all real numbers at most 6 units from 0

11.) all real numbers more than 4 units from 6

12. $1.5|3p| = 4.5$

13. $-1|c + 4| = -3.6$

14. $7|3y - 4| - 8 \leq 48$

15.) $\frac{|y|}{4} < 3$

16.) A child takes a nap averaging three hours and gets an average of 12 hours of sleep at night. Nap time and night time sleep can each vary by 30 minutes. What are the possible time lengths for the child's nap and night time sleep?

