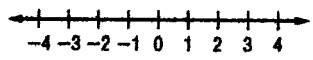
NAME _____ DATE _____ PERIOD ____

6-5 Study Guide and Intervention *(continued)*

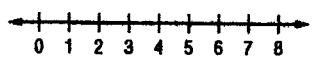
Solving Open Sentences Involving Absolute Value

Solve each open sentence. Then graph the solution set. (ABSOLUTE VALUE EQUATIONS)

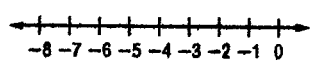
1. $|y| = 3$



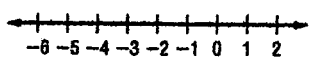
2. $|x - 4| = 4$



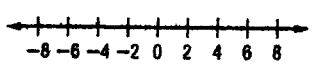
3. $|y + 3| = 2$



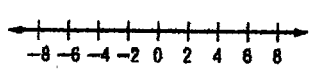
4. $|b + 2| = 3$



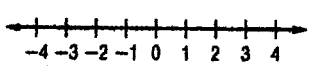
5. $|w - 2| = 5$



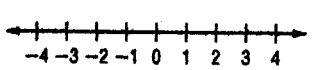
6. $|t + 2| = 4$



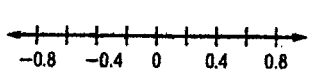
7. $|2x| = 8$



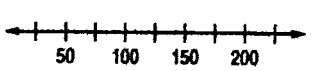
8. $|5y - 2| = 7$



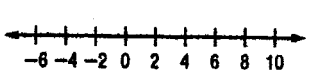
9. $|p - 0.2| = 0.5$



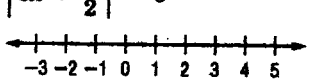
10. $|d - 100| = 50$



11. $|2x - 1| = 11$

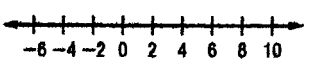


12. $\left|3x + \frac{1}{2}\right| = 6$

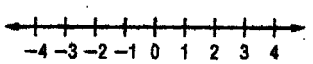


Solve each open sentence. Then graph the solution set. (ABSOLUTE VALUE INEQUALITIES)

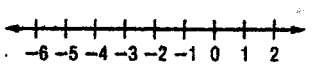
1. $|c - 2| > 6$



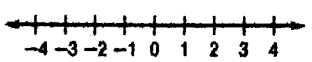
2. $|x - 9| < 0$



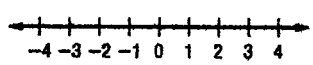
3. $|3f + 10| \leq 4$



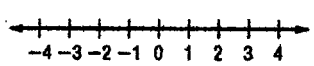
4. $|x| \leq 2$



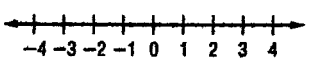
5. $|x| \geq 3$



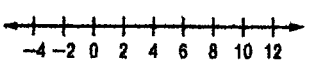
6. $|2x + 1| \geq -2$



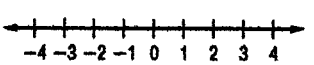
7. $|2d - 1| \leq 4$



8. $|3 - (x - 1)| \leq 8$



9. $|3r + 2| < -5$



Ex) ABSOLUTE VALUE EQUATION

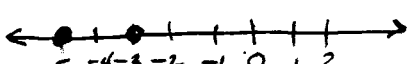
$|x+4| = 1$

$+(x+4) = 1$ | $-(x+4) = 1$

$-4 \quad -4$ | $x+4 = -1$

$x = -3$ | $-4 \quad -4$

$x = -5$



Ex) ABSOLUTE VALUE INEQUALITY

$|3x+4| < 10$

$+(3x+4) < 10$ | $-(3x+4) < 10$

$-4 \quad -4$ | $3x+4 > -10$

$\frac{3x}{3} < \frac{6}{3}$ | $-4 \quad -4$

$x < 2$ | $\frac{3x}{3} > \frac{-14}{3}$

AND | $x > -\frac{14}{3} = -4\frac{2}{3}$

$-4\frac{2}{3}$

NOTE: $<$ MEANS AN "AND" COMPOUND INEQUALITY

FLIP $<$ TO $>$