

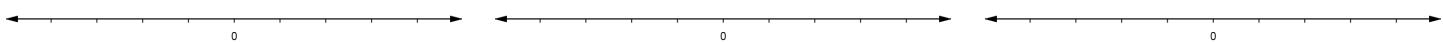
ABSOLUTE VALUE EQUATIONS

➤ Solve and graph the solution set.

1) $|x| = 7$

2) $|-t| = 3$

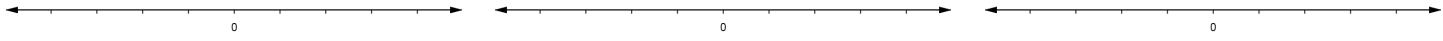
3) $|-y| = -2$



4) $|x+2| = 3$

5) $|y-5| = 3$

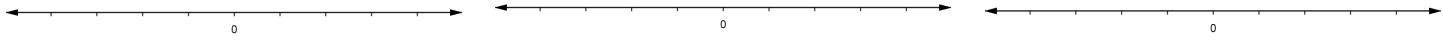
6) $|x+8| = -2$



7) $4 \cdot |2x-5| = 16$

8) $\frac{1}{4} |4-3x| = 1$

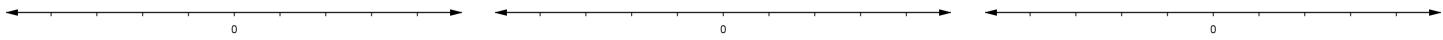
9) $|x-2|-2 = 3$



10) $|3a+2|-4 = 4$

11) $8 = 5 + |2x+1|$

12) $8 - |1-3x| = -1$



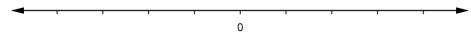
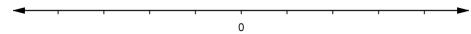
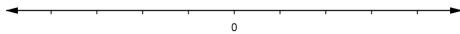
ABSOLUTE VALUE INEQUALITIES

➤ Solve and graph the solution set.

13) $|x| > 3$

14) $|x| < 5$

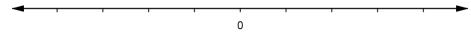
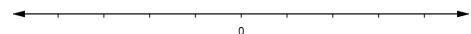
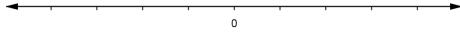
15) $|x+1| > 2$



16) $\frac{1}{2}|x| \geq 1$

17) $|x-5| \leq 1$

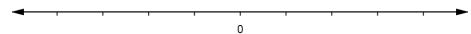
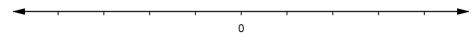
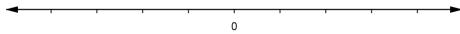
18) $\frac{1}{3}|2-x| \geq 1$



19) $|5x+1| \leq -4$

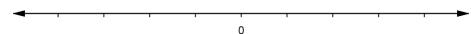
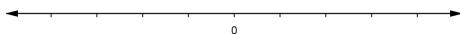
20) $13 \geq |5-4x|$

21) $\left|\frac{x-2}{3}\right| - 2 > 0$



22) $|2x-3| + 2 \leq 2.4$

23) $0.001 < |x+6|$



APPLICATIONS➤ **Solve**

- 24)** A doctor has prescribed 2.5 cc (cubic centimeters) of medication for a patient. The tolerance is 0.2 cc. Find the lower and upper limits of the amount of medication to be given.
- 25)** A power strip is utilized on a computer to prevent the loss of data by electrical surges. The power strip is designed to allow 110 volts plus or minus 16.5 volts. Find the lower and upper limits of voltage to the computer.
- 26)** Find the lower and upper limits of a 56-ohm resistor with a 5% tolerance.