



Puzzle Time

What Do Electrons Wear On Their Feet?

Write the letter of each answer in the box containing the exercise number.

Solve the inequality.

1. $|x| < 8$
2. $|x| \geq \frac{11}{2}$
3. $|x + 7| > 3$
4. $|3x - 9| > 21$
5. $\left|x - \frac{3}{2}\right| \leq \frac{15}{2}$
6. $|6x - 12| < 42$
7. $|8x - 19| > 37$
8. $|2x - 5| + 11 \leq 24$
9. $6|3x - 10| \geq 48$
10. $4|2x + 6| - 14 \leq 10$
11. $9|-x + 5| + 16 \geq 16$
12. $\frac{3}{4}|8x + 16| - 3 \geq 15$
13. The players on a basketball team decided that they wanted to score 750 points by the end of the season. The coach promised pizzas if the team scored within 50 points of its goal. Solve the inequality $|x - 750| \leq 50$, which represents the total possible number of points the team could score to earn pizzas.
14. An engineer assigned to design a product wanted the length of the main part to be within 0.004 foot of 3 feet. Solve the inequality $|x - 3| \leq 0.004$, which represents the different lengths of the part that would be acceptable to the engineer.

Answers

- A. $-6 \leq x \leq 9$
- O. $x < -10$ or $x > -4$
- K. $700 \leq x \leq 800$
- H. $x < -\frac{9}{4}$ or $x > 7$
- K. $-4 \leq x \leq 9$
- O. $-8 < x < 8$
- C. $-6 \leq x \leq 0$
- S. $2.996 \leq x \leq 3.004$
- S. $-5 < x < 9$
- N. all real numbers
- I. $x \leq -\frac{11}{2}$ or $x \geq \frac{11}{2}$
- C. $x \leq -5$ or $x \geq 1$
- T. $x \leq \frac{2}{3}$ or $x \geq 6$
- S. $x < -4$ or $x > 10$

5	11	9	2		14	7	3	10	8		6	1	12	13	4
				-											