

ALGEBRA II
Chapter 1 section 7
Solve Absolute Value Equations and Inequalities
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FOCUS:

How are absolute value equations and inequalities like linear equations and inequalities?

VOCAB:

Absolute Value: _____

Extraneous Solution: _____

WARM – UP:

Solve the equation or inequality.

1. $3x + 15 = -42$ _____ 2. $5x - 8 \leq 7$ _____ 3. $2x + 1 < -3$ or $2x + 1 > 5$

4. In the next two weeks you need to work at least 30 hours. If you can work h hours this week and then twice as many hours next week, how many hours must you work this week?

NOTES:

Solve. Check for extraneous solutions.

$$|2x - 9| = 15$$

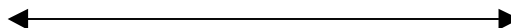
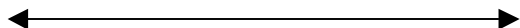
$$|4x + 12| = 28$$

$$|4x + 10| = 6x$$

Solve. Then graph the solution.

$$|3x - 7| \geq 5$$

$$|2x - 7| > 1$$



A food manufacturer specifies that every family - size box of cereal should have a net weight of 25 ounces, with a tolerance of 1.2 ounces. Write and solve an absolute value inequality that describes the acceptable net weights for the cereal in a family - size box.

You have found that your new winter coat is comfortable to wear when the outdoor temperature is between 10°F and 42°F, inclusive. Write an absolute value inequality for this temperature range, where t represents the temperature in degrees Fahrenheit.

Let's see if you comprehended what we worked on in class...

Try _____ for homework