27 FEB 2012

1ST 5

Graph and solve the compound inequalities.

1) $-5 < x + 5 < 5$

2) $1 < 3x + 4 < 10$

3) $2g > 12$ and $3g < 24$

Inequalities Day 10

1ST 5

Graph and solve the compund inequalities.

1) $-5 < x + 5 < 5$

$-5 < x + 5$ and $x + 5 < 5$

$-5 \quad -5 \qquad -5 \quad -5$

$-10 < x$ and $x < 0$

$-10 < x < 0$ $(-10, 0)$

Inequalities Day 10

2) $1 < 3x + 4 < 10$

$1 < 3x + 4$ and $3x + 4 < 10$

$-4 \quad -4 \qquad -4 \quad -4$

$\frac{-3}{3} < \frac{3x}{3}$ $\frac{3x}{3} < \frac{6}{3}$

$-1 < x$ and $x < 2$

$-1 < x < 2$ $(-1, 2)$

Inequalities Day 10

3) $2g > 12$ and $3g < 24$

$\frac{2g}{2} > \frac{12}{2}$ $\frac{3g}{3} < \frac{24}{3}$

$g > 6$ and $g < 8$

$6 < g$

$6 < g < 8$

Smallest Largest

Inequalities Day 10

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Practice 3-5 p. 42

1. $-10 < s < 0$; $(-10, 0)$

2. $-1 < x < 2$; $(-1, 2)$

5. $-3 < d < -2$; $(-3, -2)$

6. $-6 < t < 2$; $(-6, 2)$

7. $-6 < s < 4$; $(-6, 4)$

9. $-2 < x < 2$; $(-2, 2)$

11. $-5 < y < -1$; $(-5, -1)$

Inequalities Day 10

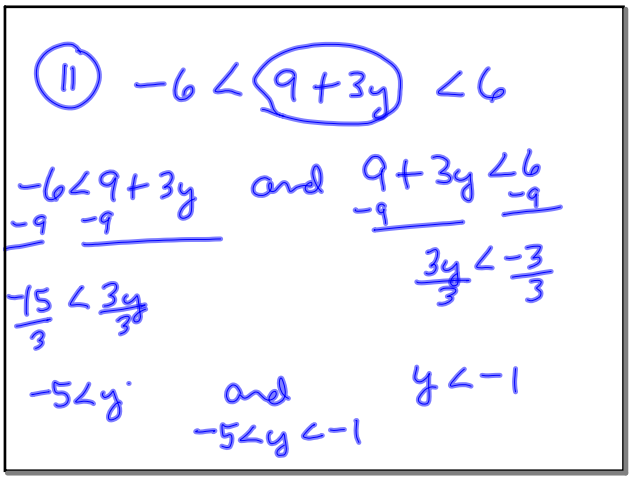
(9) $-1 < \frac{1}{2}x < 1$

$2 \cdot -1 < \frac{1}{2}x \cdot 2$ and $2 \cdot \frac{1}{2}x < 1 \cdot 2$

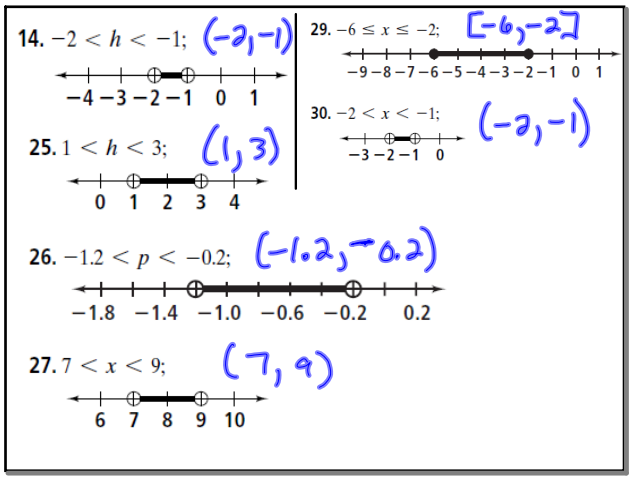
$-2 < x$ and $x < 2$

$-2 < x < 2$

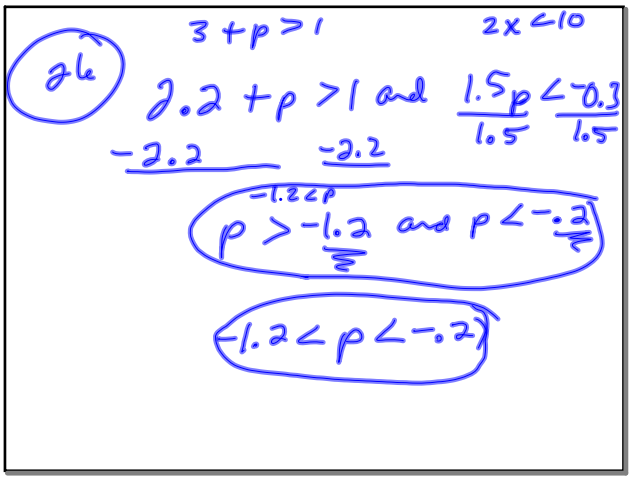
Feb 27-1:06 PM



Feb 27-7:54 AM



Inequalities Day 10



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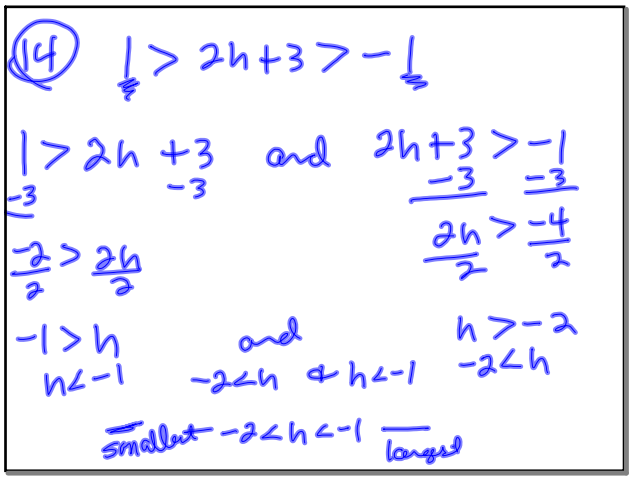

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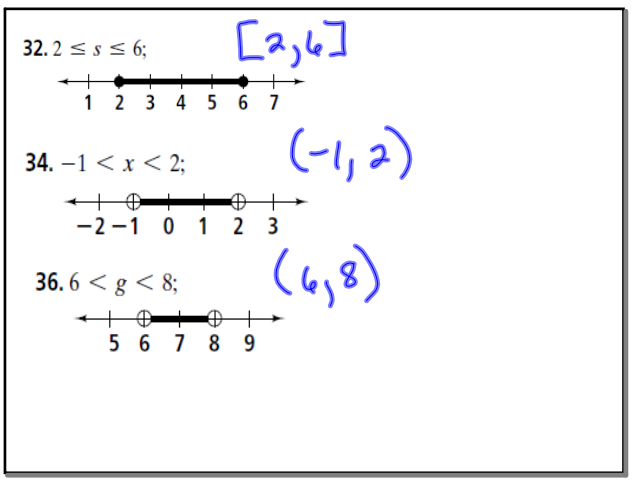
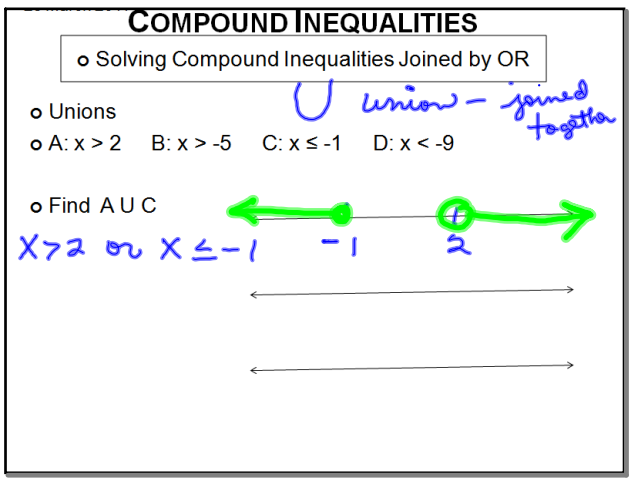


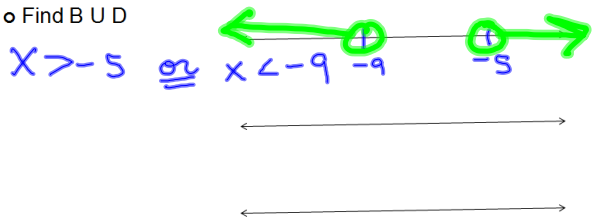
Inequalities Day 10



Inequalities Day 10

COMPOUND INEQUALITIES

- A: x > 2 B: x > -5 C: x ≤ -1 D: x < -9
- Find B U D

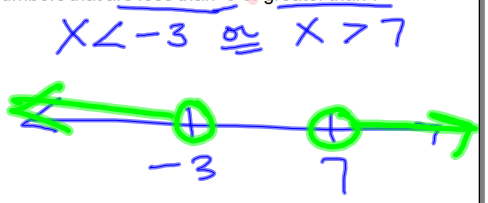


Inequalities Day 10

COMPOUND INEQUALITIES

Solving Compound Inequalities Joined by OR

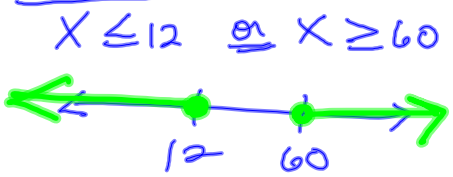
- Write a compound Inequality that represents each situation. Graph the solution
  - All real numbers that are less than -3 or greater than 7



Inequalities Day 10

COMPOUND INEQUALITIES

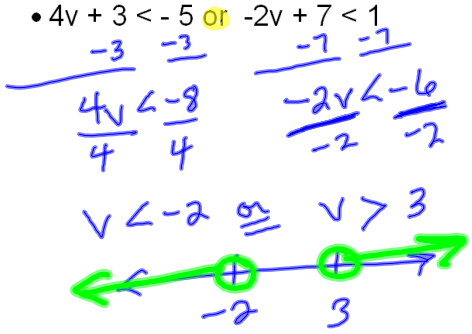
- Write a compound inequality that represents each situation. Graph the solution.
  - Discounted fares are available to children 12 and under or to adults at least 60 years of age.



Inequalities Day 10

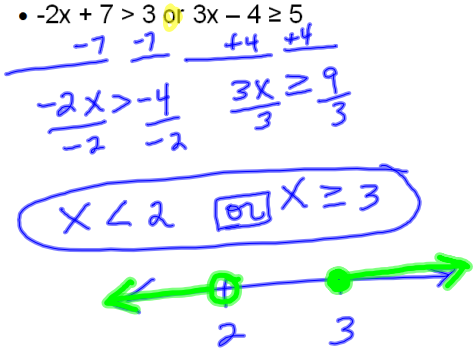
Solving a Compound Inequality Containing OR

- Solve the compound inequality and graph.
  - 4v + 3 < - 5 or -2v + 7 < 1



Inequalities Day 10

- Solve the compound inequality and graph the solution
  - -2x + 7 > 3 or 3x – 4 ≥ 5



Inequalities Day 10

- x ≥ 10 or x ≤ 7

X ≤ -2 or X > 3
(-∞,-2] U (3,∞)

Interval Notation for Unions (or)

x > 10 or x ≤ 7 can be written as

(- ∞,7] U (10,∞)

∞ means infinity

Inequalities Day 10

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Workbook pg. 42 # 3, 4, 8, 10, 12, 13, 15 - 18, 23 , 24 28. 31, 33, 35, 37, 38

Inequalities Day 10