Ready, Set, Go!

Ready

Topic: Solve exponential equations

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Find the value of x for each situation.

1. $2^x = 8$ 2. $3^x = 27$ 3. $2^x = 4$ 4. $(-2)^x = -8$

Set

Topic: Create and solve two variable inequalities

5. Jane is buying fruit salad and potato salad for a picnic. Fruit salad costs $2.00 per pound and potato salad costs $4.00 per pound. Jane needs to buy at least 6 pounds of salads and she doesn't want to spend more than $20. Write and graph a system of linear inequalities.

Let x = pounds of fruit salad.

Let y = pounds of potato salad.

List 2 possible combinations of salad that Jane could buy.
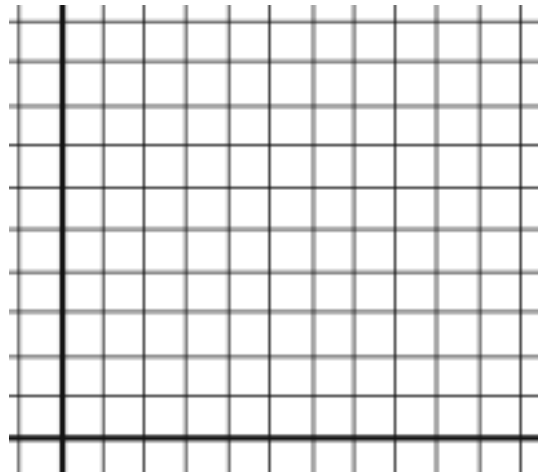
Go

Topic: Find the solution region of the following systems of inequalities.

Graph each set of inequalities and determine the solution region

6. $\begin{aligned} x - y &< -6 \\ 2y &\geq 3x + 17 \end{aligned}$

7. $\begin{aligned} 4y - 5x &< 8 \\ -5x &\geq 16 - 8y \end{aligned}$

8. $\begin{aligned} 5x - y &\geq 5 \\ 2y - x &\geq -10 \end{aligned}$

9. $\begin{aligned} 5x + 2y &\geq -25 \\ 3x - 2y &\leq 17 \\ x - 6y &\geq 27 \end{aligned}$

10. $\begin{aligned} 2x - 3y &\leq 21 \\ x + 4y &\leq 6 \\ 3x + y &\geq -4 \end{aligned}$

11. Write the inequalities that would create the graph below.
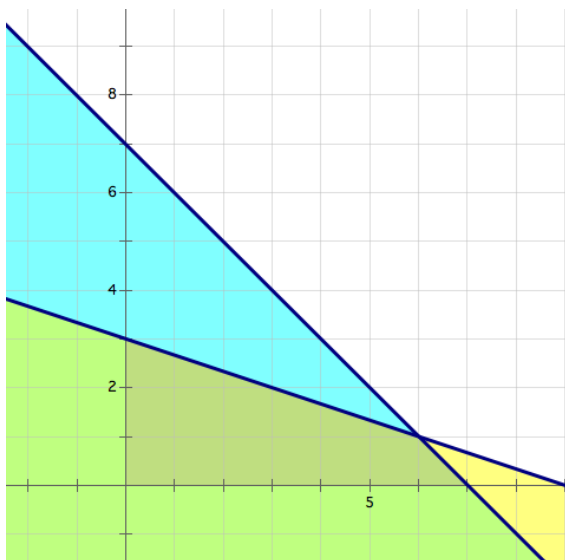
Need help? Check out these related videos.

Exponents http://patrickjmt.com/exponents-intro-to-evaluating-a-few-truefalse-questions/

Rules for exponents http://patrickjmt.com/basic-exponent-properties/

Solving a system of inequalities http://www.khanacademy.org/math/algebra/ck12-algebra-1/v/systems-of-linear-inequalities