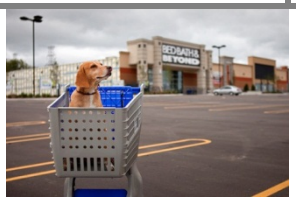
Ready, Set, Go!



Ready

Topic: Exponents

Write the following in exponential notation.

1. $4 \times 4 \times 4 \times 4 \times 4$
2. $3x \cdot 3x \cdot 3x \cdot 3x$

Find each value.

3. 2^3
4. 3^3
5. 2^5
6. $(-2)^3$
7. 4^3

Set

Topic: Solving systems

8. Nadia and Peter visit the candy store. Nadia buys three candy bars and four fruit roll-ups for $2.84. Peter also buys three candy bars, but can only afford one additional fruit roll-up. His purchase costs $1.79. What is the cost of a candy bar and a fruit roll-up individually?

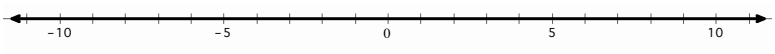
9. A farmer noticed that his chickens were loose and were running around with the cows in the cow pen. He quickly counted 100 heads and 270 legs. How many chickens did he have and how many cows?

Go

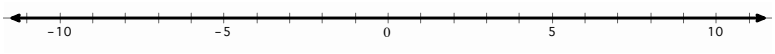
Topic: Solve one variable inequalities.

Solve the following inequalities. Write the solution set in *interval notation* and graph the solution set on a number line.

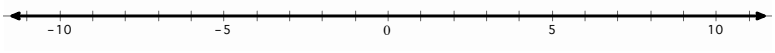
10. $4x + 10 < 2x + 14$



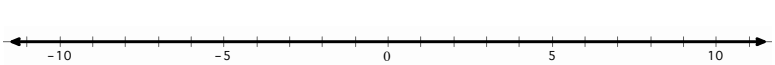
11. $2x + 6 > 55 - 5x$



12. $2(\frac{x}{4} + 3) > 6(x - 1)$



13. $9x + 4 \leq -2(x + \frac{1}{2})$



Solve each inequality. Give the solution in *inequality notation* and *set notation*.

14. $-\frac{x}{3} > -\frac{10}{9}$

15. $5x > 8x + 27$

16. $\frac{x}{4} > \frac{5}{4}$

17. $3x - 7 \geq 3(x - 7)$

18. $2x < 7x - 36$

19. $5 - x < 9 + x$

Need help? Check out these related videos?

Exponential notation:
http://www.khanacademy.org/math/algebra/exponents-radicals/v/understanding-exponents

Solving inequalities:
http://www.khanacademy.org/math/algebra/solving-linear-inequalities/v/solving-inequalities
http://www.khanacademy.org/math/algebra/solving-linear-inequalities/v/multi-step-inequalities-2

Set notation and interval notation:
http://patrickjmt.com/using-interval-notation-to-express-inequalities-ex1/