Inspiring Greatness

INDEPENDENCE SCHOOL DISTRICT

Math Virtual Learning

Algebra 1 S1

Graphing system of linear inequalities

May 7, 2020

Algebra I S1

Lesson: May 7, 2020

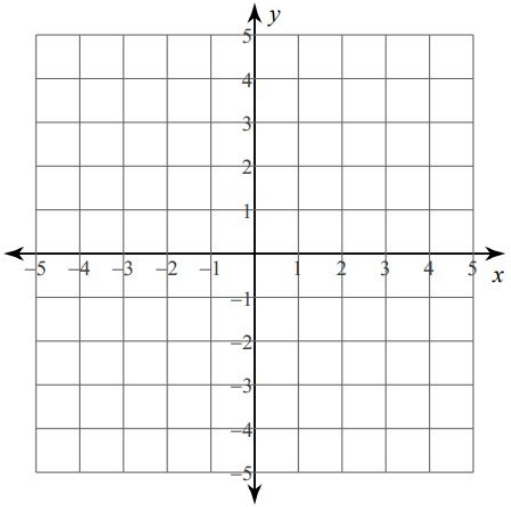
Objective/Learning Target:

Students can graph systems of linear inequalities given in standard form.

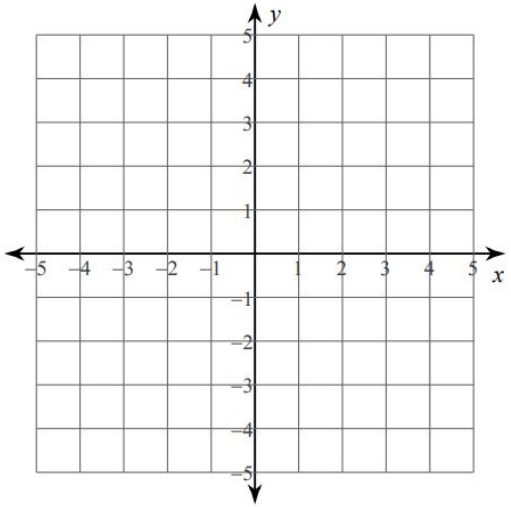
BELL RINGER

Sketch the solution to each system of inequalities.

1) $y \leq -x - 2$
$y \geq -5x + 2$



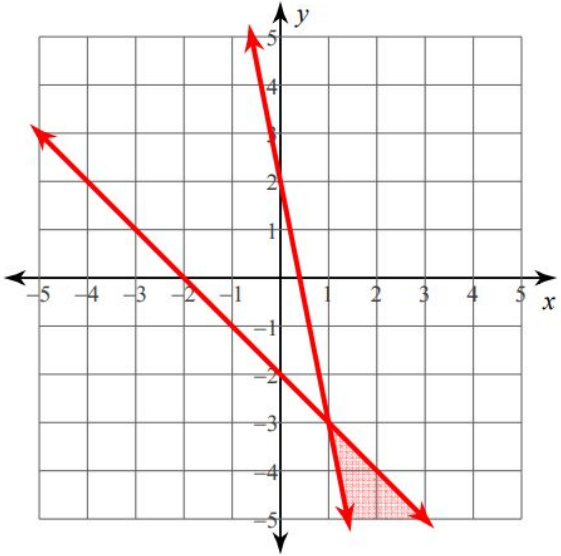
2) $y > -x - 2$
$y < -5x + 2$



BELL RINGER-solution

Sketch the solution to each system of inequalities.

1) $y \leq -x - 2$
$y \geq -5x + 2$



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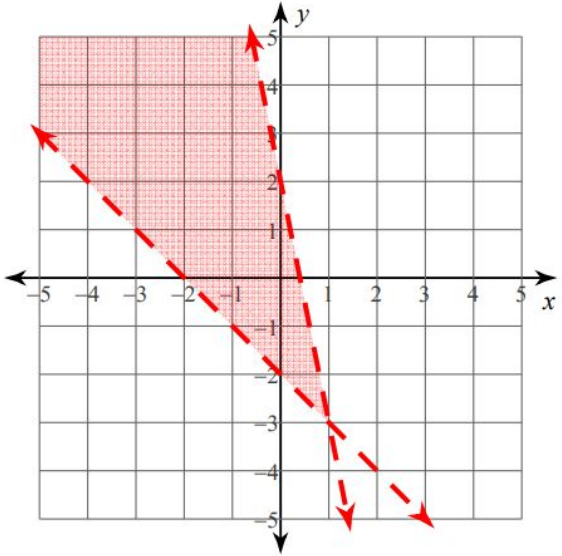
$y < -5x + 2$



- Product rule for exponents: $a^n \cdot a^m = a^{n+m}$

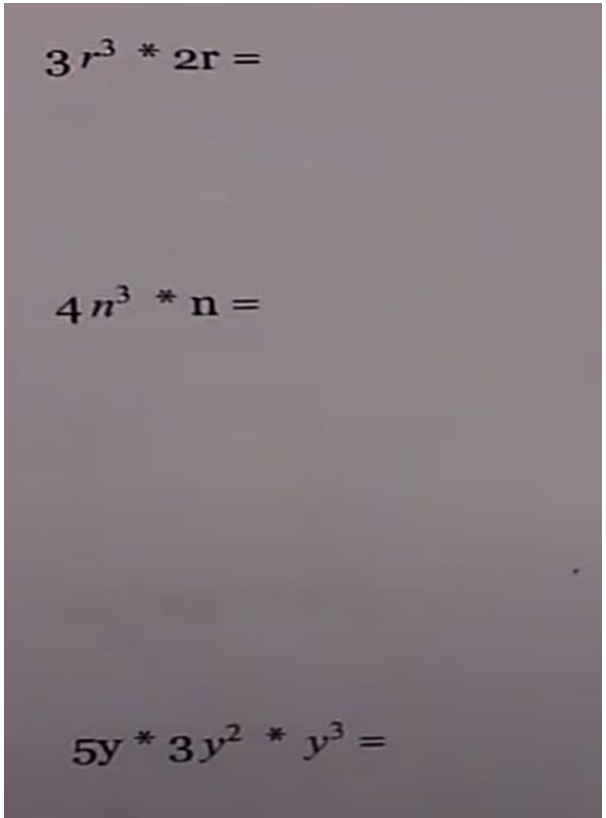
VIDEO # 1: Product rules for exponents

https://www.youtube.com/watch?v=3qilc01RGr4

VIDEO # 2: Product rules for exponents

https://www.youtube.com/watch?v=11F9kKZK9BI

Product rules practice examples



Product rules practice examples

Video answers

https://www.youtube.com/watch?v=FQS03Ljcbeg

Practice on your own

Exponents and Multiplication

Simplify. Your answer should contain only positive exponents.

1) $2^3 \cdot 2^6$

2) $\left(\frac{1}{h}\right)^3 \cdot \left(\frac{1}{h}\right)^2$

3) $y^3 \cdot y^2 \cdot y^5$

8) $\left(\frac{2}{3}\right)^2 \cdot \left(\frac{2}{3}\right)^5 \cdot \left(\frac{2}{3}\right)^4$

9) $y \cdot y^2$

10) $8cr^4 \cdot 5c^5r^2$

Practice on your own

4) $b^2 \cdot b^4$

5) $\left(\frac{1}{5}\right)^2 \cdot \left(\frac{1}{5}\right)^6$

6) $\left(\frac{1}{8}\right)^3 \cdot \left(\frac{1}{8}\right)^4 \cdot \left(\frac{1}{8}\right)^6$

7) $\left(\frac{2}{5}\right)^3 \cdot \left(\frac{2}{5}\right)^4$

11) $6r^6 \cdot 4r^5 \cdot 7r^4$

12) $3n^5d^6 \cdot 9nd^2$

13) $7 \cdot 7^4$

14) $4k^6g^2 \cdot 9k^5g^4$

Practice on your own-answers

Exponents and Multiplication

Simplify. Your answer should contain only positive exponents.

1) $2^3 \cdot 2^6$

2^9

2) $\left(\frac{1}{h}\right)^3 \cdot \left(\frac{1}{h}\right)^2$

$\left(\frac{1}{h}\right)^5$

3) $y^3 \cdot y^2 \cdot y^5$

y^{10}

8) $\left(\frac{2}{3}\right)^2 \cdot \left(\frac{2}{3}\right)^5 \cdot \left(\frac{2}{3}\right)^4$

$\left(\frac{2}{3}\right)^{11}$

9) $y \cdot y^2$

y^3

10) $8cr^4 \cdot 5c^5r^2$

$40c^6r^6$

Practice on your own-answers

4) $b^2 \cdot b^4$

b^6

5) $\left(\frac{1}{5}\right)^2 \cdot \left(\frac{1}{5}\right)^6$

$\left(\frac{1}{5}\right)^8$

6) $\left(\frac{1}{8}\right)^3 \cdot \left(\frac{1}{8}\right)^4 \cdot \left(\frac{1}{8}\right)^6$

$\left(\frac{1}{8}\right)^{13}$

7) $\left(\frac{2}{5}\right)^3 \cdot \left(\frac{2}{5}\right)^4$

$\left(\frac{2}{5}\right)^7$

11) $6r^6 \cdot 4r^5 \cdot 7r^4$

$168r^{15}$

12) $3n^5d^6 \cdot 9nd^2$

$27n^6d^8$

13) $7 \cdot 7^4$

7^5

14) $4k^6g^2 \cdot 9k^5g^4$

$36k^{11}g^6$