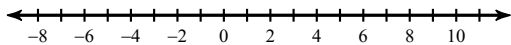


SM3-A HW 7-1 (Properties of Exponents)

Date _____ Period _____

Solve. Write the solution:**a) As a simplified inequality. (b) In Interval notation. (c) Graphically.**

1) $x + 6 < 15$ and $x - 9 \geq -16$

**Simplify.**

2) $-3n^4 \cdot 4n \cdot 2n^4$

3) $2n^3 \cdot 4n^3$

4) $-2xy^3 \cdot 4x^3$

5) $4mn^4 \cdot nm^2$

6) $(8b - b^3) + (4b - 8)$

7) $4x^3(5x - 5)$

Simplify. Your answer should contain only positive exponents.

8) $(4yx^2)^3$

9) $(x^3)^3$

10) $(3x^4y^4)^4$

11) $(2x^2y^2)^2$

12) $\frac{2u^3v^4}{u^4v^3}$

13) $\frac{3x^3y^3}{yx^2}$

14) $\frac{2u^2v^4}{3u^2}$

15) $\frac{2x^3y^3}{yx^3}$