

hw: section 2.6 page 78
 Ex 1b, 1c, 2a, 4abc, 5, 7, 10, 12

Math 9

2.6 Calculating with Powers Notes

Name:

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BEDMAS

GOAL: Simplify expressions, with powers, using ORDER OF OPERATIONS

Examples:

1. $4^2 + (-3)^2$

$= 16 + 9$

$= 25$

2. $6^2 + 8^2 \div 4 - 5^0$

$= 36 + 64 \div 4 - 1$

$= 36 + 16 - 1$

$= 52 - 1$

$= 51$

3. $\frac{(7^2 - 5^2) \div 3 + 2}{(4^2 + 3^2) - (2^2 + 1^2)}$

$= \frac{(49 - 25) \div 3 + 2}{(16 + 9) - (4 + 1)}$

$= \frac{(24 \div 3) + 2}{25 - 5} = \frac{10}{20}$

$= \frac{8 + 2}{20} = \frac{1}{2}$

4. $(\sqrt{16} - \sqrt{49})^2 \div 3^2 + 5$

$= (4 - 7)^2 \div 3^2 + 5$

$= (-3)^2 \div 3^2 + 5$

$= 9 \div 9 + 5$

$= 1 + 5$

$= 6$

Ex) A local store sells hamburger buns, in two different size boxes.

- The small box contains 10 packages (each containing 2 buns)
- The large box has 12 packages (each with twice as buns as the small packages)

Write an expression using powers to show the total number of hamburger buns

SMALL BOX + LARGE BOX

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10 packages 12 packages

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$(10 \times 2) + (12 \times 2^2)$

$= 20 + 12 \times 4 = 20 + 48$

$= 68$