

Name: \_\_\_\_\_ Period: \_\_\_\_\_

Week 13 Homework Packet – 7<sup>th</sup> Grade Math Honors

**ASSIGNMENT DUE TUESDAY, NOVEMBER 1, 2016**

Unit 2, Chapter 4 – Powers and Roots

SCORE  
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WEEK SCORE  
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Stamp

Simplify the following expressions:

1)  $\frac{6m^3n^{-4}}{15mn^2}$

2)  $10a^{-4}b \cdot \frac{3}{2}ab^{-2}$

3)  $\frac{6m^3n^{-4}}{15mn^2}$

4)  $(2x^4y)(7x^{-3}y^2)$

Convert the following numbers from scientific notation to standard notation or vice versa.

5)  $4.26 \times 10^4$

6) 0.000 006 34

7)  $3.19 \times 10^{-3}$

8) 461,200,000,000,000

Skills Review

Evaluate and simplify each of the following. **Show all work!**

9)  $\frac{4}{5} + \frac{2}{3}$

10)  $\frac{9}{10} - \frac{3}{4}$

11)  $-\frac{2}{5} + \frac{6}{7}$

12)  $-\frac{3}{8} - \left(-\frac{5}{6}\right)$

13)  $\frac{9}{20} \times \frac{5}{12}$

14)  $\frac{6}{5} \div \frac{16}{15}$

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**ASSIGNMENT DUE WED/THU, NOVEMBER 2/3, 2016**

Unit 2, Chapter 4 - Powers and Roots

Add or subtract the following numbers and write your answers in scientific notation. **Show all work!**

1)  $4.2 \times 10^3 + 6 \times 10^2$

2)  $3.8 \times 10^7 + 2.91 \times 10^8$

3)  $2.1 \times 10^{-4} - 7.8 \times 10^{-5}$

4)  $6.12 \times 10^{11} - 8.04 \times 10^9$

5)  $4.4 \times 10^{-13} + 9.07 \times 10^{-11}$

6)  $1.14 \times 10^{-6} - 5.84 \times 10^{-7}$

7)  $9.41 \times 10^7 + 8.6 \times 10^6$

Skills Review

Evaluate the following expressions if  $a = 4$ ,  $b = -3$ , and  $c = -7$ . **Show all work!**

8)  $10a + b$

9)  $\frac{2(b + c)}{a}$

10)  $c^2$

11)  $10 - c$

12)  $c - 2a$

13)  $\frac{ac}{2}$

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## ASSIGNMENT DUE FRIDAY, NOVEMBER 4, 2016

Unit 2, Chapter 4 - Powers and Roots

Evaluate the following expressions and write your answers in scientific notation. **Show all work!**

1)  $(2 \times 10^9)(4 \times 10^3)$

2)  $(6 \times 10^3)(1.5 \times 10^8)$

3)  $(8 \times 10^4) \div (4 \times 10^9)$

4)  $(6 \times 10^{-5})(8 \times 10^3)$

5)  $(4.5 \times 10^7)(4 \times 10^{-2})$

6)  $(4 \times 10^6) \div (8 \times 10^{-3})$

7)  $(1.2 \times 10^4) \div (3 \times 10^3)$

### Skills Review

For problems 8–13, identify the pattern that the numbers follow, then write the next three numbers of the sequence.

8) 6, 10, 14, 18, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

9)  $\frac{1}{2}$ , 1, 2, 4, 8, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

10) 10, 7, 4, 1, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

11) 96, 48, 24, 12, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

12) 1, 4, 9, 16, 25, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

13) 10, 9, 11, 8, 12, 7, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

For problems 14–17, identify which property of mathematics tells us that the statement is true.

14)  $a \cdot 3 = 3a$

15)  $1m = m$

16)  $q + 0 = q$

17)  $(x + y) + z = x + (y + z)$