

HW- Exponent rules and Scientific notation

Name _____

Fill in the charts below:

| Original form | Factored form | Simplified exponent form |
|-------------------------------------|---------------|--------------------------|
| $8^2 \cdot 8^6$ | | |
| $4n^2 \cdot 4n^3$ | | |
| $2 \cdot x^3 \cdot 3 \cdot x$ | | |
| $3 \cdot a^2 b^2 \cdot 4ab$ | | |
| $8^2 \cdot n^3 \cdot 8^4 \cdot n^5$ | | |

| Original form | Factored form | Simplified exponent form |
|---------------------------------|---------------|--------------------------|
| $(7^6)^3$ | | |
| $(n^3)^4$ | | |
| $(w^3 x^4)^2$ | | |
| $\frac{4^5}{4^3}$ | | |
| $\frac{a^4 b}{a^2 b}$ | | |
| $\frac{5^3 x^4 y^3}{5^5 x^2 y}$ | | |

Write in standard form:

1) 5.2×10^6 2) 3.95×10^3 3) 4×10^8 1) _____

2) _____

3) _____

Write in Scientific Notation:

4) 3,900,000,000 5) 700,000 6) 68,200,000 4) _____

5) _____

6) _____

Simplify:

7) $-10 + -5$ 8) $-18 - 10$ 9) $20 - (-9)$ 10) $-13 + 8$

11) $-12 - (-12)$ 12) $8 - 14$ 13) $19 - 11$ 14) $-5 - (-8)$