Introduction to Exponents – Algebra Session #7 - Worksheet

Evaluate the exponents:

1) 22^3

2) 56^4

3) 7^{-3}

4) 57^{-3}

Solve the math problem:

5) $91^2 + 88^3$

6) $3^{-3} + 3^5$

7) $7^{-2} - 6^{-2}$

8) $456 \cdot 10^5$

9) $569 \cdot 10^{-5}$

Ω - The symbol for ohms, the unit of measurement for electrical resistance
F - In electronics, this is the symbol for farad, the unit of measurement for capacitance

Prefix	Symbol	Meaning
mega	M	10^6
kilo	K	10^3
milli	m	10^{-3}
micro	μ	10^{-6}
pico	p	10^{-12}

Complete these electronic conversions:

10) Convert the value of 560MΩ into ohms

11) What is the total resistance of three resistors in series, each with a value of 500KΩ? Give the answer in ohms. (Hint: Resistors in series add together)

12) Convert the value of a .1μF capacitor into farads. Give the answer in regular notation (not scientific notation)

13) Convert the value of a .068μF capacitor into picofarads

14) Convert the value of a 330,000pF capacitor into microfarads

15) What is the total capacitance of three capacitors in parallel, each with a value of .15μF? Give your answer in farads using regular notation. (Hint: Capacitors in parallel add together)

