N3CS19 Practice Set 16

Instructions: Answer each question on loose leaf, quad-ruled (graph paper), headed properly and written in lead-graphite. Remember to fold paper along the center, work exercises in order top to bottom, left column then right column. Staple multiple pages. ***If your current grade pct. is ≥82%, you may complete between 2 and 4 exercises per section.***

1) Solve the root equations.

a) $x^2 = 961$ $x =$

b) $n^3 = -729$ $n =$

c) $v^2 = \frac{256}{64}$ $v =$

d) $l^3 = \frac{-216}{64}$ $l =$

2) Compute in Scientific Notation.

a) $\left(9.5\times10^{11}\right)+\left(6.3\times10^{9}\right)=$

b) $\left(2.03\times10^{9}\right)-\left(4.7\times10^{7}\right)=$

c) $\left(8.75\times10^{3}\right)\left(8.4\times10^{-6}\right)=$

d) $\frac{2.4\times10^{8}}{9\times10^{-11}}=$

3) Estimate the expressions.

a) $3\sqrt{18}$

b) $2\sqrt{40}-13$

c) $\frac{5+\sqrt{20}}{6}$

d) $\sqrt[3]{1700}-\sqrt[3]{-700}$

4) That Super Lotto Jackpot that NO TEACHER AT CCCS WON 😩 was worth $1,600,000,000!!! We know LeBron's salary with the Lakers is $153,300,000.
a) How many times larger is the Lotto to LeBron's salary? Express your solution in Scientific notation and standard form
b) How *much more* is the Lotto to Lebron's salary? Express your solution in Scientific notation and standard form

5) The formula for computing the height of your bottle rocket at AstroCamp™ is: $h = \frac{1}{2}gt^2$, where 'g' is the acceleration due to gravity, $9.8\frac{m}{s^2}$, and 't' is the time to reach it's maximum height.
Compute the height of a rocket that traveled up for 2.7 seconds.

6) What number families do the *expressions* in question # 3 belong to? Justify your argument with evidence.

7) What number families do the *solutions* in questions 1 belong to? Justify your argument with evidence.

8) Simplify: $\left(\sqrt{13}\right)^2+\left(\sqrt{14}\right)^2$