N3CS19 Practice Set 24

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

1) Simplify: $3-(x-4)+5x$

2) Simplify: $4-(-2x-3)+4x$

3) Simplify: $5-\frac{1}{4}(8x-12)+7x$

4) Determine the value of the unknown that makes the statement true: $4-2x=-13$

5) Determine the value of the unknown that makes the statement true: $-8-3x=5$

6) Determine the value of the unknown that makes the statement true: $6-\frac{n}{3}=-10$

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7) Evaluate the following square root (i.e., write as product of simplest rational and irrational factors: $\sqrt{76}$

8) Evaluate the following: $6.39\bullet10^{15}-9{,}000{,}000{,}000{,}000$

9) Simplify: $\frac{4^8}{4^{-4}}$

10) What number is equivalent to $\frac{3^4}{3^2}$?

a) 2 b) 729 c) 6 d) 9

11) What number is *not* equivalent to $\frac{1}{16}$?

a) $4^{-9}\bullet4^7$ b) $4^9\bullet4^7$ c) $4^{10}\bullet4^{-12}$ d) $4^5\bullet4^{-7}$

12) What is the value of $0.6\overline{7}$ written as a fraction?

a) $\frac{2}{3}$ b) $\frac{67}{100}$ c) $\frac{671}{99}$ d) $\frac{61}{90}$

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13) The Planet Mercury is approximately $6\bullet10^7$ miles from the Sun; the distance between the Sun and Mars is $2\bullet10^8$ miles. About how many times farther from the Sun is Mars to Mercury?

14) Find the value of x to make the statement true:

$$\frac{\left(b^{10}\right)^3}{b^{15}}=\frac{b^{18}\bullet b^x}{b^8}$$

15) Write $3.652\bullet10^{-4}$ in standard form.

16) Place the following values in order, from least to greatest:

$2^0, 2^{-2}, (-2)^2, -2^2$

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