N3CS19 Practice Set 12

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) Write the repeating decimals as fractions; ***reduce fractions to lowest terms***

a) $0.\overline{7}$ b) $0.\overline{36}$ c) $0.\overline{63}$ d) $0.8\overline{3}$ *hint: subtract 100n-10n!*

2) Solve the square equations.

a) $x^2 = 289$ b) $n^2 = 576$ c) $t^2 = 729$ d) $v^2 = 961$

3) Find the perimeter of squares with the given area.

a) $289cm^2$ b) $576m^2$ c) $729km^2$ d) $961pm^2$ (picometers)

4) Simplify; write exponents as positive, and expand the powered number, e.g., $2^3 = 8$

a) $\left(3x^2y^{-4}\right)^2$ b) $\left(4x^{-3}y^3\right)^3$ c) $\left(\frac{3}{8}x^{-2}y^{-3}\right)^2$ d) $\left(2^{-2}x^3y^{-4}\right)^2$

5) Compute the difference.

a) $6-8$ b) $6-(-8)$ c) $-6-8$ d) $-6-(-8)$

6) Simplify; write the exponents as positive.

a) $\frac{x^6}{x^8}$ b) $\frac{x^6}{x^{-8}}$ c) $\frac{x^{-6}}{x^8}$ d) $\frac{x^{-6}}{x^{-8}}$

7) Determine the area of a rectangle with given side lengths; all measurements are in centimeters (cm)

a) $5x^2, 6x^3$ b) $8y^3, 7y^3$ c) $6x^2y, 3xy^2$ d) $4x^2y^2, 3x^3y^4$

8) Rationalize the denominators of the expressions

a) $\frac{4}{\sqrt{5}}$ b) $\frac{4}{\sqrt{2}}$ c) $\frac{\sqrt{8}}{\sqrt{6}}$ d) $\frac{3\sqrt{2}}{\sqrt{6}}$