N3CS19 Practice Set 30

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

Translate into the appropriate math statements:

1) An expression for the sum of 3 consecutive integers
2) An expression for the sum of 3 consecutive even integers
3) An expression for the sum of 3 consecutive odd integers
4) An expression for the sum of 4 consecutive even integers
5) 4 times the sum of a number and 5 is 3 less than twice the number.
6) one-half the difference of a number and 6 is 4 more than 3 times the sum of the number and 2

7) Simplify; write as exponents positive: $\frac{w^8}{w^{13}}$

8) Simplify; write as exponents positive: $\frac{x^8}{x^{-13}}$

9) Simplify: write as exponents positive: $\frac{y^{-8}}{y^{-13}}$

10) $\frac{4}{9}+\frac{5}{6}$; simplify and keep improper

11) Write as a fraction: $0.3\overline{9}$

12) Write as the product of its simplest rational and irrational factors: $\sqrt{80}$

13) $n^2 = 841$
$n =$

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

15) $\left(2.4 \bullet 10^4\right) \bullet \left(6 \bullet 10^3\right) =$

16) $\frac{2.4 \bullet 10^8}{6 \bullet 10^4} =$

17) The volume of a cube is $512cm^3$; what is the area of one of its faces?

18) The area of a square is $256in^2$; what is the square's perimeter?

19) Simplify: $6-2(3-x)$

20) Simplify: $7-3(4-2x)+5x$

21) Simplify: $8x-4(5-3x)-7$

22) Simplify: $6-\frac{3}{4}(12-8x)-5x$

23) Solve for the unknown: $7-\frac{2}{3}n=3$

24) Solve for the unknown: $7-4n=25+2n$

25) Solve for the unknown: $3(m+5)-6=3(m+3)$

26) Solve for the unknown: $7x-\frac{1}{8}(32-48x)-11=-12$
$x =$

27) Which of the following has the greatest value?

A) $\left(3^{-2}\right)^3$ B) $\left(3^2\right)^3$ C) $3^2 \bullet 3^3$ D) $\frac{3^3}{3^2}$

28) $\frac{n^9 \bullet n^x}{n^4} = n^8$
$x =$

29) Between which two integers is $20-\sqrt{10}$?

30) Solve the formula $E = mc^2$ for 'c'.