

**N3CS19**

**Practice Set 28**

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 the statements into the correct mathematic expressions or equations

- 1) Seven less a number      2) Eight less than a number      3) Twice a number  
 4) The sum of a number and 13      5) Three-fourths of a number  
 6) The quotient of a number and six      7) The sum of a number and another number  
 8) Five less than three times a number



7)  $3n - 4(5 - 6n) + 7 = 8$       8)  $59 + x = 2 - 2x$       9)  $4(a + 2) = 14 - 2(3 - 2a)$   
 $n =$        $x =$        $a =$

10)  $3b - \frac{1}{5}(10 - 20b) + 7 = 2b - 3(5 - 7b) + 11$       11)  $2(g - 2) - 4 = 2(g - 3)$   
 $b =$        $g =$

12)  $\frac{4}{5} + \frac{3}{8} =$       13)  $\frac{4}{5} \div \frac{10}{6} =$       14) Write  $0.\overline{36}$  as a fraction.

15. Write  $0.\overline{36}$  as a fraction.      16. Simplify:  $\frac{x^2}{x^6}$ ; write exponents positive.

17) Simplify:  $\frac{x^2}{x^{-6}}$ ; write exponents positive.      18) Simplify:  $\frac{x^{-2}}{x^6}$ ; write exponents positive.

Write as the product of its simplest rational and irrational factors:

19)  $\sqrt{18}$       20)  $\sqrt{72}$       21)  $\sqrt{200}$

22) Add:  $(1.29 \cdot 10^5) + (5.31 \cdot 10^4) =$ ; write the sum in scientific notation and standard form.

23)  $n^2 = 529$       24)  $x^3 = -216$   
 $n =$        $x =$

25) The Planet Mercury is about  $6 \cdot 10^7$  miles from the Sun; Mars is about  $2 \cdot 10^8$  miles from the Sun. About how many miles is Mars from Mercury? Express your solution in Scientific Notation and Standard Form.

26)  $16 - \sqrt{8}$  is between which 2 integers on a number line?

27) Evaluate:  $\left[(-2^2)\right]^3 + 3^4$

28) Which linear equation has a solution process that has a combining like terms step?

A)  $6x + 5 = 2x + 1$       B)  $3x + 2y = 5$       C)  $2x = 10$       D)  $\frac{x}{6} = 12$

29) Solve the Kinetic Energy Equation,  $KE = \frac{1}{2}mv^2$ , for  $v$ . Assume  $KE$  is one variable.

30) Three times a number, decreased by 8, is the same as twice the number increased by 15. Determine the number.

