Math	Skille	Pre-Test	Δ
TATCLER	OWITTO	TIC-ICST	

Overall	Score	(27 pc)	ossible)

Name

Percentage	
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Period Date

Chemistry requires the use of some math skills. This pre-test is for you to find out what you know and what you need work on. The problems are designed to be do-able without a calculator. A high score on this pre-test indicates that you have the math skills needed for high school chemistry. An average score on this pre-test means that you have the math skills needed for high school chemistry, but you will need to work extra hard on the math concepts. A low score means that you will likely need to work extra hard and come in for help from your teacher fairly often. The overall score will not affect your class average.

Solve for the variable or number, unless otherwise indicated. Show work as needed. Please write each answer in the blank provided.

A. Solving Equations Using Addition and Subtraction

1.
$$x + 2 = 9$$

2. m - 31 = 12

B. Solving Equations Using Multiplication and Division

3.
$$4p = 16$$
 = 9 $p = 4$

$$4(y/2)^{2} = 5 \times 2$$
 $y = 10$

C. Solving Equations using add/subtraction/multiplication/division.

5.
$$4x - 7 = 37$$

D. Using integers in calculations

8.
$$115(511) = 27$$

10.
$$(5/2) \cdot (-6/5) = \frac{3}{2} \cdot \frac{6}{5} = \frac{36}{10} = 3$$

E. Solving formulas for a variable

Rearrange each formula as instructed.

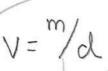
11. PV =
$$nRT$$
 solve for T

12.
$$P_T = P_1 + P_2 + P_3$$
 solve for P_2

12.
$$P_T = P_1 + P_2 + P_3$$
 solve for P_2
 $P_2 = P_1 - P_3$
 $P_2 = P_1 - P_1 - P_3$

13.
$$d = \frac{m}{V}$$
 solve for V





F. Conversions	-
15. The answer to the following problem would be expressed in units of 68s x 60min x 24hir x 365days =31 536 000 5550 4450 4450 4450 4450 4450 4450	if each
G. Proportions: Solve for the variable 16. $\frac{x}{30} = \frac{3}{10}$ $\frac{4}{30} = \frac{6}{1}$ 17. $\frac{2}{30} = \frac{6}{1}$ 18. Percentage	
18. Anita's chemistry test had 40 problems. She answered 30 of them correctly. When problems did she answer correctly? 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	75 %
Scientific notation: (example: 1.00 x 10 ⁴) Change to scientific notation:	
J. Number sense: Fractions ↔ decimals Give the equivalent values for the most common fractions decimals:	
27.25 = <u>0.49</u> 5½	
After taking the pre-test, make an evaluation of your own math skills.	

Good OK Not so good Real bad

Self-Evaluation: Excellent