UIL High School Number Sense Test
Problem Sequencing
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Problem 1 - 20 ***
1) Addition, subtraction, multiplication, & division of Integers, Mixed Numbers, Fractions, and Decimals
2) Order of Operations
3) Use of the Distributive Property
4) Comparison of Fractions and Decimals
5) Multiplication Short-Cuts
6) Squaring Numbers
7) Conversion Problems (either way): Percent/Fractions, English/Metric, Roman Numerals/Arabic Numerals
8) Greatest Common Divisor (GCD) & Least Common Multiple (LCM)
9) Percent Problems
10) Mean, Median, & Mode
11) Sums of Integers
12) Remainder Problems
13) Consumer Type Problems
14) Number Theory Problems Involving: Prime Numbers, Divisors, Sums of Divisors, etc.

Problems 21 - 40
1) Powers of Numbers
2) Substitution
3) Word Problems
4) Inverses
5) Absolute Value
6) Ratio/Proportion
7) Square Roots/Cube Roots
8) Sets
9) Base System Problems
10) Solving Simple Equations
11) Simultaneous Equations
12) Repeating Decimals to Fractions
13) More Remainder Type Problems
14) Perimeter & Area Problems of Polygons
15) Sequences
16) Quadratic & Cubic Equation Problems

Problems 41 - 50
1) Laws of Exponents
2) Right Triangle Problems
3) Coordinate Geometry Problems
4) Regular Polygon Problems
5) Inequalities

Problems 51 - 60
1) Applications of Theorems from Geometry
2) Direct and Inverse Variation
3) Sequences & Series (Finite & Infinite)

Problems 51 - 70
1) Complex Numbers
2) Logarithms & Logarithmic Equations
3) Permutations & Combinations
4) Probability
5) Conics
6) Binomial Theorem (Expansion)

Problems 61 - 70
1) Volume & Surface Area
2) Greatest Integer
3) Application of Remainder Theorem
4) Trigonometry
5) Determinants
6) Matrices
7) Vectors
8) Composite Functions

Problems 71 - 80
1) Value of Domain of a Given Function
2) Bases Involving Decimal Fractions
3) Polar/Rectangular Coordinates
4) Modular Arithmetic
5) Limits
6) Derivative
7) Slopes of Tangent Lines
8) Horizontal & Vertical Asymptotes
9) Determining Critical Values
10) Maximum & Minimum Problems
11) Definite Integration

*** A type of problem from a particular section could appear later in the test. Example: A base problem could appear as problem #55, but should not appear earlier than problem #21.