

### ***Item Analysis Worksheet***

After taking a sample test, complete the table below to build a Praxis study plan.

#	Put "X" if wrong answer.	What general topic is this question? See pg. 3 of this handout.	What concept is this question? See pg. 3 of this handout.	How I am going to study this topic and concept?
sample	<b>X</b>	Decimals	Addition	ALEKS, <a href="http://www.JoleneMorris.com">www.JoleneMorris.com</a> , and <a href="http://www.IXL.com">www.IXL.com</a> at least one hour in each of the three areas, and then take another practice test.
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## Topics & Concepts

- 1. Number Theory**
  - a. Classifications of number sets in our number system (natural, whole, integers, etc.)
  - b. Place value, expanded notation, and exponents
  - c. Basic operations on whole numbers (addition, subtraction, multiplication, & division)
  - d. Order of operations
  - e. Multiplying and dividing by powers of 10
  - f. Ordering and comparing
  - g. Estimation and rounding
  - h. Other number classifications (squares, cubes, primes, composite, consecutive, etc.)
  - i. Factors, multiples, and divisibility rules
  - j. Properties of our number system
- 2. Fractions**
  - a. Simplifying (reducing) and equivalent fractions
  - b. Comparison and ordering
  - c. Addition and subtraction (and finding common denominators)
  - d. Multiplication
  - e. Division (and reciprocals)
  - f. Converting fractions to decimals and percentages
- 3. Decimals**
  - a. Place value and expanded notation
  - b. Comparison and ordering
  - c. Estimation and rounding
  - d. Addition and subtraction
  - e. Multiplication
  - f. Division
  - g. Converting decimals to fractions and percentages
  - h. Scientific Notation
- 4. Integers**
  - a. Number line and absolute value
  - b. Comparison and ordering
  - c. Addition
  - d. Subtraction
  - e. Multiplication and division
  - f. Inverses and Identities
- 5. Ratios, Proportions, and Percentages**
  - a. Ratios – definition, simplifying, ratios vs. fractions
  - b. Proportions and how to solve them
  - c. Percentages and how to solve them
  - d. Discounts, Interest, Sales Tax, and Commissions
  - e. Unit Analysis
  - f. Converting percentages to decimals and fractions
- 6. Geometry and Measurement**
  - a. Plane geometry (point, line, line segment, ray, angle, etc.)
  - b. Classify angles
  - c. Classify triangles
  - d. Plane figures (definition, sum of interior angles, perimeter, area)
  - e. Three-dimensions objects (definition, nets, volume)
  - f. Pythagorean Theorem and triples
  - g. Measurement (metric and U.S. customary) and Unit Analysis
  - h. Plane transformations (translation, rotation, dilation, and reflection)
  - i. Tessellations
- 7. Data, Statistics, and Probability**
  - a. Mean, median, mode, quartiles, and range
  - b. Probability, multiple events, fundamental counting theorem, and odds
  - c. Sequences and series
  - d. Charts and Graphs
- 8. Algebraic Reasoning**
  - a. All concepts from Number Theory
  - b. Graphing on a number line and a coordinate grid
  - c. Solving linear equations
  - d. Solving quadratic equations