

Note: NO CALCULATOR IS PERMITTED FOR THIS EXAM.

The following content can be found in a mathematics text for elementary education majors, such as *Mathematics for Elementary Teachers: A Conceptual Approach* by Albert Bennett and L. Ted Nelson, McGraw Hill, 2007.

1. Patterns and sequences, esp. arithmetic and geometric sequences.
2. Sets: Set operations, Venn diagrams.
3. Whole numbers: Structure of our base-ten number system, operations, properties, and algorithms. Also, other base number systems and ancient numeration systems.
4. Integers: Operations, properties.
5. Number theory: Divisibility, prime and composite numbers, greatest common divisor, and least common multiple.
6. Fractions and decimals: operations and properties.