ACT Math Contents

Pre-Algebra
20-25%
12-15 questions

- Basic operations using whole numbers, decimals, fractions, integers, exponents, and square roots.
- Compute greatest common multiple, understand factors
- Ratios, proportions, percent
- Absolute value equations and inequalities.
- Reading and representing data in charts, tables and graphs. Simple probability and data analysis.
- Scientific notation, place values, patterns, counting techniques

Elementary Algebra
15-20%
8-10 questions

- Use equations to relate two variables
- Solve linear equations and inequalities
- Able to add and factor polynomials, as well as solve for their roots
- Able to substitute
- Familiar with order of operations to simplify expressions involving variables

Intermediate Algebra
15-20%
8-10 questions

- Quadratic formula and quadratic inequalities
- Rational and radical expressions, bi-nomials, *complex numbers**
- Compute greatest common multiple, understand factors
- Solve system of equations
- Recognize patterns in sequences

Plane Geometry
20-25%
12 -15 questions

- Triangles, Circles, Rectangles, Parallelograms , Trapezoids
- Relation of plane figures: angles, perpendicular and parallel lines, transformations, perimeter
- Names of three dimensional figures and their volume and surface area
- Transformations: ways to translate, rotate, and reflect a shape to obtain a congruent shape

Coordinate Geometry
20-25%
12 questions

- Familiarity with (x,y) coordinate plane and labelling points in the plane
- Slope, calculate the formula for slope, distance, midpoints, parallel and perpendicular lines
- Graphing equations and inequalities
- The graphs and equations of the three major types of conic sections: ellipses, hyperbolas, and parabolas

Trigonometry
5-10%
3-6 questions

- *Solve trig equations and recognize trigonometry graphs**
- *Model simple situations via word problems with trig functions**
- *Use trig functions to solve for lengths of sides and angles within right triangles**
- *Familiarity with radian measurement**