

ACT EXAM MATH STUDY LIST

How many of the topics listed below do you remember??

To study these topics, check the video tutorials on virtualnerd.com and khanacademy.org

TEST TAKING TIP: There is a time limit, you will have 60 minutes to do 60 math problems. You don't have to do the problems in the order they're given within a section, but do select an answer for every question, even if you have to give your best guess. If you have time at the end of the section, you can go back and work more on any question in this section.

Simplifying expressions, order of operations (PEMDAS), distributing, absolute value

Solving equations or inequalities for x ; solving absolute value equations or inequalities

Converting word problems to equations to solve

Scientific notation & operations with this

Factors, prime factors, common factors

Ratio, Proportion, & Percent

Probability of single event or multiple independent events, and the counting principle

Mean, median, mode

Linear equations: standard form, slope-intercept form, point-slope form; Calculating slope

Function notation, domain & range; Operations with Functions, & composition of functions

Solving a two-variable system of equations

Matrix addition, scalar multiplication, and finding the determinant given the formula

Quadratic equations: solving by factoring, solving with the quadratic formula

Imaginary numbers & Complex numbers

Properties of exponents, logarithms, and square roots; Solving exponential and radical equations

Fractions: adding & subtracting using a common denominator, multiplying, dividing; doing these operations with numbers or with rational algebraic expressions

Sequences: arithmetic, geometric

Parallel and perpendicular lines & their slopes

Midpoint formula, Distance formula, Pythagorean Theorem

Relationships of angles along transversals of parallel lines; Complementary or supplementary angles

Similar shapes and the relationships between their sides and angles; Degrees in a triangle or rectangle

Areas of squares, rectangles, triangles, circles; Volumes of rectangular boxes, cylinders, & spheres

Right triangles & the ratios of their sides in relation to a given angle: sine, cosine, tangent (SOH-CAH-TOA)

Graphs of sine, cosine & tangent; Trigonometric identities: $\tan = \sin/\cos$; $\sin^2 + \cos^2 = 1$