

PAPA Math Test Objectives	Resources
Understand numbers and the number system	✓ Introduction to Orders of Operations: http://www.khanacademy.org/math/arithmetic/multiplication-division/order_of_operations/v/introduction-to-order-of-operations ✓ Practice with Defining Number Sets: http://www.khanacademy.org/math/arithmetic/fractions/number_sets/v/number-sets ✓ Understanding Fractions and Decimals: http://www.khanacademy.org/math/arithmetic/fractions ✓ Guide for Using Scientific Notation: http://www.khanacademy.org/math/arithmetic/exponents-radicals/scientific-notation/v/scientific-notation--old ✓ Real-world problems using percentages: http://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/percent_word_problems/v/another-percent-word-problem
Apply principles of algebra to expressions and equations	✓ Analyzing Patterns: http://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/More-equation-practice/v/patterns-in-sequences-1 ✓ Identifying Variables and Expressions: http://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/variable-and-expressions/v/what-is-a-variable ✓ Manipulating Algebraic Equations: http://www.khanacademy.org/math/differential-equations/first-order-differential-equations/separable-equations/v/separable-differential-equations

Apply principles of algebra to linear and nonlinear functions

- ✓ Linear Functions Practice Guide:
<http://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/solving-linear-equations-and-inequalities/e>
- ✓ Linear Inequalities Practice Guide:
http://www.khanacademy.org/math/algebra/linear_inequalities/linear_inequalities/e
- ✓ Slope:
http://www.khanacademy.org/math/trigonometry/graphs/slope_of_line/v/slope-of-a-line
- ✓ Factoring Quadratic Expressions:
http://www.khanacademy.org/math/algebra/quadratics/factoring_quadratics/v/factoring-quadratic-expressions
- ✓ Practicing Quadratics:
<http://www.khanacademy.org/math/algebra/quadratics/quadratics/e>

Understand measurement concepts and geometry principles

- ✓ Applying the Metric System:
http://www.khanacademy.org/math/arithmetic/rates-and-ratios/unit_conversion/v/applying-the-metric-system
- ✓ Converting with the Metric System:
http://www.khanacademy.org/math/arithmetic/rates-and-ratios/unit_conversion/v/converting-within-the-metric-system
- ✓ Area and Perimeter:
http://www.khanacademy.org/math/geometry/basic-geometry/perimeter_area_tutorial/v/perimeter-and-area-basics
- ✓ Circles- Radius, Diameter, & Circumference:
http://www.khanacademy.org/math/geometry/basic-geometry/circum_area_circles/v/circles--radius--diameter-and-circumference
- ✓ Pythagorean Theorem:
http://www.khanacademy.org/math/geometry/right_triangles_topic/pyth_theor/v/the-pythagorean-theorem
- ✓ Finding Area Using Similarity and Congruence:
http://www.khanacademy.org/math/geometry/similarity/triangle_similarity/v/finding-area-using-similarity-and-congruence
- ✓ Finding Angles with Triangles and Polygons:
http://www.khanacademy.org/math/geometry/parallel-and-perpendicular-lines/triang_prop_tut/v/proof---sum-of-measures-of-angles-in-a-triangle-are-180
- ✓ Rates of Change Practice Guide:
http://www.khanacademy.org/math/calculus/derivative_applications/rates_of_change/v/rates-of-change-between-radius-and-area-of-circle
- ✓ Transformations:

Demonstrate knowledge of data, statistics, and probability

Understand problem solving, reasoning, and mathematical communication

- http://www.khanacademy.org/math/geometry/transformations/e/axis_of_symmetry
- ✓ The Coordinate Plane:
<http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/coordinate-plane/v/the-coordinate-plane>
- ✓ Measures of Central Tendency Guide:
http://www.khanacademy.org/math/probability/descriptive-statistics/central_tendency/v/statistics-intro--mean--median-and-mode
- ✓ Probability and Statistics Guide:
<http://www.khanacademy.org/math/probability>
- ✓ Further Probability Practice:
http://www.khanacademy.org/math/trigonometry/prob_comb
- ✓ Permutations and Combinations:
http://www.khanacademy.org/math/trigonometry/prob_comb/combinatorics_precalc/v/permutations
- ✓ Solving Percent Problems:
http://www.khanacademy.org/math/arithmetic/decimals/percent_word_probs/v/solving-percent-problems
- ✓ Practice Guide to Word Problems:
<http://www.khanacademy.org/math/algebra/systems-of-eq-and-ineq/systems-word-problems/v/officer-on-horseback>
- ✓ Algebraic Manipulation Practice Problem:
<http://www.khanacademy.org/test-prep/iit-jee/v/iit-jee-algebraic-manipulation>
- ✓ Deductive vs. Inductive Reasoning:
http://www.khanacademy.org/math/trigonometry/seq_induction/deductive-and-inductive-reasoning/v/deductive-reasoning-1
- ✓ Basic Triangle Proofs:
http://www.khanacademy.org/math/geometry/congruent-triangles/isoscleles_equil/v/basic-triangle-proofs-module-example
- ✓ Guide for Understanding Function Notation:
http://www.khanacademy.org/math/trigonometry/functions_and_graphs/function_introduction/e/functions_1
- ✓ Functions and Relations:
http://www.khanacademy.org/math/algebra/algebra-functions/relationships_functions/v/relations-and-functions

Prep Courses/Online Courses

- ✓ Full-Length Practice Test (Free):
http://www.pa.nesinc.com/Content/docs/PECT_PT_01_02_03_PAPA.pdf
- ✓ PRAXIS/PAPA/PECT Prep Classes & Tutoring at BC3: <http://www.passpraxis.com/>
- ✓ Papa Preparation- Math Component at Community College of Allegheny County:
http://ccac.edu/course_detail.aspx?course_id=27049&course_number=ECD-155
- ✓ PAPA Test Preparation Workshops—Philadelphia Area (\$45-65 fee):
<http://www.ccp.edu/site/business/ContinuingProfessionalEducation/PAPATESTPREPARATIONWORKSHOPS.php>
Up-coming dates: 4/23/2013, 4/24/2013, 4/27/2013, 4/30/2013, 5/1/2103, & 5/8/2013 new dates needed

Related Prep Materials:

- ✓ Online Math Help from Drexel University—Ask Dr. Math (Free):
http://mathforum.org/math_help_landing.html
- ✓ Pass PRAXIS Prep Class—Starts June 12, 2012 (\$199 fee):
<http://www.passpraxis.com/>
- ✓ Preparation Materials for PRAXIS (Free):
http://www.ets.org/praxis/prepare/materials/praxisi_mathematics
- ✓ Mathematics PRAXIS Practice Test (\$13.95):
<http://store.ets.org/store/ets/DisplayProductDetailsPage/ThemeID.12805600/productID.124398500>
- ✓ Math Exam Suggestions & Tips PowerPoint from PennState University (Free):
http://www.ed.psu.edu/educ/ppdc/praxis/praxis_math.pdf
- ✓ Test Preparation Webinars (Free):
<http://www.ets.org/praxis/prepare/webinars/>
Up-coming dates: 5/13/2103 & 6/19/2013 new dates needed