



Colegio de San Juan de Letran
Dominican Avenue, Abucay, Bataan
Library Services Department

RESEARCH GUIDE:

MATH 9

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RESEARCH GUIDES

MATHEMATICS 9

I. SCOPE NOTE

A subject that allows students to gain knowledge and develop their skills that will transform their lives toward productive ends. pressreader.com

II. SEARCH AIDS (BT: Broader Term, RT: Related Term, NT: Narrow Term)

BT:

- Applied Sciences

RT:

- Mathematics
- Algebra
- Trigonometry
- Geometry

NT:

- Quadratic Equations
- Quadratic Function
- Radicals
- Variations
- Similar Triangles
- Quadrilateral
- Square Root
- Factoring
- Graph
- Solving for the Zero
- Quadratic Formula

III. INFORMATION RESOURCES

A. LIBRARY RESOURCES

Note: For the appropriate access credentials, please contact the Letran Bataan Library

➤ E-JOURNALS

- American Journal of Mathematics.
https://www.proquest.com/publication/publications_41735
- School Science and Mathematics.
https://www.proquest.com/publication/publications_41443
- Journal of Teacher Education. https://www.proquest.com/publication/publications_1067
- The American Mathematical Monthly.

- https://www.proquest.com/publication/publications_47349
- Educational Studies in Mathematics.
https://www.proquest.com/publication/publications_2043786
- Mathematics Teaching in the Middle School
https://search.proquest.com/publication/publications_32879?accountid=190548
- The Mathematics Teacher
https://search.proquest.com/publication/publications_41299?accountid=190548
- International Journal of Mathematical Education in Science and Technology
https://search.proquest.com/publication/publications_176146?accountid=190548
- Mathematical Intelligencer
https://search.proquest.com/publication/publications_48906?accountid=190548
- The Mathematical Gazette
https://search.proquest.com/publication/publications_2035960?accountid=190548

➤ E-THESES

- Mart, M. (2019). The impact of teacher self-efficacy on methodology and the use of graphing technology in teaching factoring quadratic functions: Perspectives of international introductory algebra teachers (Order No. 13859091). Available from ProQuest Central. (2212210947). Retrieved from <https://www.proquest.com/dissertations-theses/impact-teacher-self-efficacy-on-methodology-use/docview/2212210947/se-2?accountid=190548>
- Shah, M. J. (2018). Applying a validity argument framework to learning trajectories on middle grades geometric similarity using learning science and psychometric lenses (Order No. 11007215). Available from ProQuest Central. (2135762368). Retrieved from <https://www.proquest.com/dissertations-theses/applying-validity-argument-framework-learning/docview/2135762368/se-2?accountid=190548>
- Bornstein, N. M. (2017). Music of the triangles: How students come to understand trigonometric identities and transformations (Order No. 10278587). Available from ProQuest Central. (1908927242). Retrieved from <https://www.proquest.com/dissertations-theses/music-triangles-how-students-come-understand/docview/1908927242/se-2?accountid=190548>
- Bornstein, N. M. (2017). Music of the triangles: How students come to understand trigonometric identities and transformations (Order No. 10278587). Available from ProQuest Central. (1908927242). Retrieved from <https://www.proquest.com/dissertations-theses/music-triangles-how-students-come-understand/docview/1908927242/se-2?accountid=190548>
- Wojcik, A. J. (2017). Developing conceptual understanding and procedural fluency in algebra for high school students with intellectual disability (Order No. 10681699). Available from ProQuest Central. (1979370372). Retrieved from <https://www.proquest.com/dissertations-theses/developing-conceptual-understanding-procedural/docview/1979370372/se-2?accountid=190548>
- Norman, K. W. (2008). High school mathematics curriculum and the process and accuracy of initial mathematics placement for students who are admitted into one of the science, technology, engineering, and mathematics programs at a research institution (Order No. 3321924). Available from ProQuest Central. (304585198). Retrieved from <https://search.proquest.com/docview/304585198?accountid=190548>
- Sevim, Volkan. (2011). Students' understanding of quadratic functions: A multiple case

study. (Order No. 3474335). Available from ProQuest Central. (897940785). Retrieved from <https://search.proquest.com/docview/897940785/E66C344CCF3445ABPQ/1?accountid=190548>

- Darch, Melissa. (2018). Characterizing Classes of Quadrilaterals and Hexagons. (Order No. 10793876). Available from ProQuest Central. (2100708390). Retrieved from <https://search.proquest.com/docview/2100708390/942CDFDEC05A4CDEPQ/4?accountid=190548>
- Wylie, Dave. (2014). Factoring Blades and Versors in Euclidean Clifford Algebras. (OrderNo. 1564083). Available from ProQuest Central. (1613175990). Retrieved from <https://search.proquest.com/docview/1613175990/F62B327D19174F5APQ/4?accountid=190548>
- O'Hanlon, Angela L. (2011). The effect of scheduling models for introductory algebra on 9th-grade students, test scores and grades. (Order No. 3449986). Available from ProQuest Central. (1613175990). Retrieved from <https://search.proquest.com/docview/863810812/48FB32BA4BF14334PQ/11?accountid=190548>

B. OPEN ACCESS

➤ FREE E-BOOKS

- High School Assistance Foundation (2016). Quadratic Functions. In Asian Math. Algebra 1B. New York: High School Assistance Foundation. <https://www.pdfdrive.com/quadratic-functions-and-quadratic-equations-e53121257.html>
- Muschla, Judith A., Muschla, Gary Robert, Muschla, Erin (2015). Teaching the common core Math standards with hands-on activities, Grades-9-12. U.S.: Jossey-Bass. <https://www.pdfdrive.com/teaching-the-common-core-math-standards-with-hands-on-activities-grades-9-12-e157850288.html>
- Mental math: Grade 9 mathematics. (2015). Canada: Manitoba Education and Advanced Learning. <https://www.pdfdrive.com/mental-math-grade-9-mathematics-e34370381.html>
- Smarandache, Florentin (2015). Compiled and solved problems in Geometry and Trigonometry. Columbus, USA: Educational Publisher. <https://www.pdfdrive.com/compiled-and-solved-problems-in-geometry-and-trigonometry-d18218354.html>
- Sultan, Alan, Artzt, Alice F. (2011). The Mathematics that every secondary school math teacher needs to know. New York: Routledge. <https://www.pdfdrive.com/the-mathematics-that-every-secondary-school-math-teacher-needs-to-know-e29060748.html>
- Lang, Serg, Murrow, Gene (1988). Geometry: a high school course (2nd ed.). New York: Springer Science+Business Media. <https://www.pdfdrive.com/geometry-a-high-school-course-e157703589.html>
- Shipman, Jerry R. (1998). Algebra & Trigonometry Problem Solver. New Jersey: Research and Education Association. <https://www.pdfdrive.com/algebra-trigonometry-problem-solver-e157740108.html>
- Barry, P D. (2001). Geometry with Trigonometry. Horwood Publishing Ltd. <https://www.pdfdrive.com/geometry-with-trigonometry-e178335676.html>
- Algebra in 15 Minutes. (2009). Learning Express. <https://www.pdfdrive.com/algebra-in-15-minutes-a-day-junior-skill-builders-e157203873.html>

➤ FREE E-JOURNALS

- International Journal of Mathematics and Mathematical Science. www.hindawi.com
- International Electronic Journal of Mathematics Education. <https://www.iejme.com/>
- Scientific Research. <https://www.scirp.org/>
- Journal of Mathematics Research. <http://www.ccsenet.org/>
- Journal of Algebra. <https://www.sciencedirect.com/journal/journal-of-algebra>

➤ FREE E-THESES

- Zimmerman, S. C. (2020). Exploring mathematical knowledge for teaching quadratic functions through student work. (Thesis). NC Docks. Retrieved from http://libres.uncg.edu/ir/uncg/f/Zimmerman_uncg_0154D_13154.pdf
- Hardison, HL (2018). Investigating high school students' understandings of angle measure. (Thesis). University of Georgia. Retrieved from <http://hdl.handle.net/10724/38330>
- Mann, L. C. (2017). Unpacking mathematics anxiety in year 9 students: a thesis presented in partial fulfilment of the requirements for the degree of Master of Education in Mathematics Education, Massey University, New Zealand. (Thesis). Massey University. Retrieved from <http://hdl.handle.net/10179/12883>
- Parent, J. S. S. (2015). Students' Understanding Of Quadratic Functions: Learning From Students' Voices. (Thesis). University of Vermont. Retrieved from <https://scholarworks.uvm.edu/graddis/376>
- Nielsen, L. E. J. (2015). Understanding quadratic functions and solving quadratic equations: An analysis of student thinking and reasoning. (Doctoral Dissertation). University of Washington. Retrieved from <http://hdl.handle.net/1773/33799>
- Walsh, R. (2015). A purpose-built model for the effective teaching of trigonometry: a transformation of the van Hiele model. (Thesis). University of Limerick. Retrieved from <http://hdl.handle.net/10344/4660>
- Wilson, T. F. (2016). A Curriculum Study About Trigonometric Applications Aligned with the Common Core State Standards. (Thesis). SUNY College at Brockport. Retrieved from https://digitalcommons.brockport.edu/ehd_theses/656
- Jennings, P. R. (2013). Hyper spherical trigonometry, related elliptic functions and integrable systems. (Doctoral Dissertation). University of Leeds. Retrieved from <http://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.617146>
- King, Arik. (2011). Using Interactive Games to Improve Math Achievement Among Middle School Students in Need of Remediation. (Dissertation). The George Washington University. Retrieved from. <https://www.proquest.com/dissertations-theses/using-interactive-games-improve-math-achievement/docview/889144147/se-2?accountid=190548>
- Chin, K. E. (2013). Making sense of mathematics: supportive and problematic conceptions with special reference to trigonometry. (Doctoral Dissertation). University of Warwick. Retrieved from <http://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.589828>
- Hewson, A. E. (2013). An examination of high school students' misconceptions about methods of exponential equations. (Master's Thesis). SUNY College at Fredonia. Retrieved from <http://hdl.handle.net/1951/62653>

C. PROFESSIONAL ORGANIZATIONS

- American Mathematical Society. <https://www.ams.org/>
- National Council of Teachers of Mathematics. <https://www.nctm.org/>
- Association of Teachers of Mathematics. <https://www.atm.org.uk/>
- Mathematical Society of the Philippines. <https://www.mathsociety.ph/>
- Mathematics Teachers Association of the Philippines. <https://www.facebook.com/MTAPBOARD/>
- International Mathematical Union. <https://www.mathunion.org/imu-members/philippines>

D. OTHER RELATED WEB PORTALS

- Math is Fun. <https://www.mathsisfun.com/algebra/trigonometry.html>
- Khan Academy. <https://www.khanacademy.org/math/trigonometry>
- Math Made Easy. <https://mathsmadeeasy.co.uk/gcse-maths-revision/trigonometry-gcse-revision-and-worksheets/>
- Online Math Learning. <https://www.onlinemathlearning.com/basic-trigonometry.html>
- Better Explained. <https://betterexplained.com/articles/intuitive-trigonometry/>

E. RELATED RESEARCH GUIDES

- St. Claire Community College. <https://esearch.sc4.edu/math/trig>
- Manchester Community College. <https://library.mccnh.edu/self-study/math/trig>
- CCBC Library. <https://libraryguides.cbcemd.edu/mathematics/trigonometry>
- Centennial College. <https://libraryguides.centennialcollege.ca/c.php?g=716824>
- Riverside City College. <https://library.rcc.edu/c.php?g=681272&p=4811916>

IV. TUTORIALS

- Square and square root – Radicals. <https://www.studypug.com/>
- Introduction to quadratic equations. <https://www.youtube.com/watch?v=EWj7mkoRXIU>
- Solving word problems involving quadratic equations. <https://www.youtube.com/watch?v=kvp8O-Y0nzk>
- Solving quadratic equation by extracting the square root. <https://www.youtube.com/watch?v=WDjsON2eSOk>
- Solving quadratic equation using quadratic formula. <https://www.youtube.com/watch?v=tuRly7dVl10>
- Factoring vs. completing the squares vs quadratic formula. <https://www.youtube.com/watch?v=qAGe9VF4nol>
- Quadrilaterals. <https://www.youtube.com/watch?v=JwLqcJxU81c>
- Analyze Math. https://www.analyze-math.com/high_school_math/grade_10/trigonometry.html
- Math 10. <https://www.math10.com/problems/trigonometry-problems/easy/>
- BYJU'S. <https://byjus.com/maths/trigonometry/>
- Study. <https://study.com/learn/trigonometry-questions-and-answers.html>
- Skills You Need. <https://www.skillsyouneed.com/num/trigonometry.html>
- Solving Quadratics by Factoring. <https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:quadratic-functions-equations/x2f8bb11595b61c86:quadratics-solve-factoring/v/example-1-solving-a-quadratic->

[equation-by-factoring](#)

- Simplifying Square Roots.

<https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:rational-exponents-radicals/x2f8bb11595b61c86:simplifying-square-roots/v/simplifying-square-roots-1>

- Solving Similar Triangles. <https://www.khanacademy.org/math/geometry/hs-geo-similarity/hs-geo-solving-similar-triangles/v/similarity-example-problems>

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