

Handout 2.13: Self-Assessment

Mathematics Content Knowledge

For the course you teach, determine your level of confidence in teaching each topic below on a 1 to 5 scale: 1 = not confident, 2 = somewhat confident, 3 = moderately confident, 4 = very confident, 5 = extremely confident.

Mathematics Subtopics					
Elementary operations	1	2	3	4	5
Decimals, percents, and their applications	1	2	3	4	5
Simple equations and operations	1	2	3	4	5
Exponents and square roots	1	2	3	4	5
Fractions and their applications	1	2	3	4	5
Geometry	1	2	3	4	5
Graphing	1	2	3	4	5
Measurement of geometric objects	1	2	3	4	5
Integers and their applications	1	2	3	4	5
Angles	1	2	3	4	5
Reasoning and logic	1	2	3	4	5
Linear equations and inequalities	1	2	3	4	5
Quadratic equations	1	2	3	4	5
Polynomial operations	1	2	3	4	5
Rational expressions	1	2	3	4	5
Data analysis, probability, and statistics	1	2	3	4	5
Proportional reasoning	1	2	3	4	5
Logarithms and exponential functions	1	2	3	4	5
Word problems	1	2	3	4	5
Radical functions	1	2	3	4	5
Absolute values	1	2	3	4	5
Trigonometry	1	2	3	4	5
Limits of functions	1	2	3	4	5
Derivatives	1	2	3	4	5
Integration	1	2	3	4	5

Note: These are topics that are assessed through the MDTP math series.

Mathematical Pedagogy

Rate your agreement with each statement on a 1 to 5 scale: 1 = strongly disagree, 2 = disagree, 3 = partially agree, 4 = agree, 5 = strongly agree.

1. I am confident with the full range of mathematics content, including higher mathematics.



2. I know how to plan standards-based mathematics lessons.



3. I know several strategies for effectively teaching problem solving.



4. I know how to design and adapt mathematics lessons to meet the needs of all secondary mathematics students.



5. I understand the connection between motivation and learning and know several strategies for increasing student motivation.



6. I understand the purpose and use of multiple and varied assessments in the process of guiding instruction.



7. I know how to provide my students with multiple ways of demonstrating their learning.



8. I know how to break down complex mathematics concepts into discrete steps that students can follow.



Note: Statements are derived from the National Council of Teachers of Mathematics' program standards.