

# PreAlgebra—Unit 1 Scale

Lessons 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 2.4, 2.5, 3.2, 3.6

OAS: 6.N.2.1 Estimate solutions to addition and subtraction of integers problems in order to assess the reasonableness of results.

6.N.2.2 Illustrate addition and subtraction of integers using a variety of representations.

6.N.2.3 Add and subtract integers; use efficient and generalizable procedures including but not limited to standard algorithms.

7.N.2.1 Estimate solutions to multiplication and division of integers in order to assess the reasonableness of results.

7.N.2.2 Illustrate multiplication and division of integers using a variety of representations.

7.N.2.6 Explain the relationship between the absolute value of a rational number and the distance of that number from zero on a number line. Use the symbol for absolute value.

PA.N.1.4 Classify real numbers as rational or irrational. Explain why the rational number system is closed under addition and multiplication and why the irrational system is not. Explain why the sum of a rational number and an irrational number is irrational; and the product of a non-zero rational number and an irrational number is irrational.

PA.N.1.5 Compare real numbers; locate real numbers on a number line. Identify the square root of a perfect square to 400 or, if it is not a perfect square root, locate it as an irrational number between two consecutive positive integers.

PA.A.3.1 Use substitution to simplify and evaluate algebraic expressions. PA.A.3.2 Justify steps in generating equivalent expressions by identifying the properties used, including the properties of operations (associative, commutative, and distributive laws) and the order of operations, including grouping symbols.

Advanced	In addition to Satisfactory applications, in depth inferences are made and applications that go beyond what was taught.
Satisfactory	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>○ Write and evaluate expressions using order of operations.</li> <li>○ Add, subtract, multiply and divide integers accurately.</li> <li>○ Identify and Classify real numbers</li> <li>○ Understand and use absolute value</li> <li>○ Understand vocabulary: variable, evaluate, algebraic expression, numerical expression, order of operations, counterexample, zero pair, opposites, additive inverse, multiplicative inverse, absolute value, whole number, rational number, integer</li> </ul> <p>Student exhibits no major errors or omissions.</p>
Limited Knowledge	<ul style="list-style-type: none"> <li>○ Recognizes or recalls vocabulary, but cannot explain or elaborate.</li> <li>○ Performs most of the processes of adding, subtracting, multiplying and dividing integers, but makes small errors, or needs help.</li> <li>○ Performs most of the processes of evaluating expressions using order of operations, but makes small errors, or needs help.</li> </ul> <p>No major errors or omissions regarding the simpler details and processes, but the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>
Unsatisfactory	With help, a partial understanding of the limited knowledge content, but not the satisfactory content.