

6th Grade Diocesan Placement Test: Study Guide

- Add, subtract, multiply, and divide decimals
- Add, subtract multiply, and divide fractions (mixed numbers too)
- Add and subtract mixed numbers with unlike denominators
- Circumference and area of a circle
- Find an unknown percent: ex. What percent of 20 is 5?
- Area of a triangle: $Bh/2$
- Ratios in simplest form
- Mean: average; median: middle number; mode: most repeated number; and range: largest minus smallest number
- Customary Unit conversions: yards to feet; foot to inches
- Compare and order decimals from least to greatest
- Place value from trillions to millionths
- Find the tax paid on a purchase of several items: ex. If I bought a cd for \$10 and a lacrosse stick for \$29.00, and the sales tax was 6%, how much was the tax I had to pay? How much was my total purchase including tax?
- Proportions → set ups; ex. If a 7 ft. flagpole cast a 10 ft. shadow, then at the same time of day how much of a shadow a 2 ft. parking meter would have?
- Interpret “of” as multiplication
- Turn a percent into a fraction or decimal before multiplying
- Know the difference between a prime and composite number
- Understand how to write a sample space in a probability problem
- Find patterns in an arithmetic sequence
- Graph inequalities on a number line
- Know inequality symbols: $>$, $<$, \geq , \leq
- Metric Conversions: know your base steps → liter, meter, and gram → know prefix meanings in order to convert → centi = 100; milli = 1000; kilo = 1000
- Probability on number cube or a spinner
- Solve for an unknown in an addition, subtraction, multiplication, or division equation
- Prime factorization: Division by Primes or Factor Tree
- Solve for an unknown in equivalent fractions: ex. $3/n = 18/54$
- Classify triangles by their angles: acute, obtuse, or right
- Classify triangles by their sides: equilateral, scale, or isosceles
- Interpret the meaning of tick marks on triangles or rectangles
- Adding negative integers: rule → negative + negative = negative
- Think thermometer when adding integers...
- Subtracting integers: rule → get rid of the subtraction sign and add the opposite
- Multiply and divide whole numbers
- Know the formula for area for the following geometric figures: triangle, rectangle, parallelogram, and square
- Compare fraction to decimal; compare fraction to fraction; compare different units of measurement (ex. Kilometers to meters; yards to inches, etc.)