

## Web Demo & Topics

### Math 8 – Part 1

- 1) Evaluate:  $|-10| + |15|$
- 2) Round 14.567 to the nearest tenth.  
1) 14.6      2) 14      3) 14.5      4) 14.4
- 3) Find the area of a circle with a diameter of 10 m.  
1) 31.40 m<sup>2</sup>      2) 15.7 m<sup>2</sup>      3) 78.5 m<sup>2</sup>      4) 123.4 m<sup>2</sup>
- 4) Simplify the expression.  
 $-7x + 5 + 12x + 14$   
1)  $5x + 19$       2)  $-5x + 19$       3)  $19x + 19$       4)  $19x^2 + 19$
- 5) Find the volume of a sphere with a diameter of 15 m.  
(Round your answer to the nearest m.)  
1) 5299 m<sup>3</sup>      2) 1766 m<sup>3</sup>      3) 1657 m<sup>3</sup>      4) 4829 m<sup>3</sup>

### Math 8 – Part 2

- 1) Ms.Lahti has an aquarium in her classroom. She has three types of fish: angelfish, goldfish, and guppies. These fish are distributed in a ratio of 4:6:10, respectively. Determine the percent of each type of fish in the aquarium.
- 2) Jim bought 3 packets of vegetable seeds: beans, carrots, and radishes; and two packets of flower seeds: marigolds and petunias. Finding that his garden was too small, he decided to give away one packet of vegetable seeds and one packet of flower seeds, each selected randomly.  
Write the sample space of all possible pairs of packets that he might select to give away.

3) Sue has three pairs of pants: one blue, one yellow, and one red; and four blouses: one yellow, one white, one tan, and one green.

Draw a tree diagram or list the sample space showing all possible outfits consisting of one pair of pants and one blouse.

4) Part A

Graph the following points.

Part A

- 1) Connect the points in order.
- 2) Draw the image of the figure for a dilation with the origin as the center and a scale factor of 2.

$$H = (1,7); \quad I = (3,3); \quad J = (1,3)$$

- 5) Draw a Venn diagram to illustrate the given information.

Sports:

28 students play only football

16 students play only basketball

5 students run track, but do not play football or basketball

4 students play basketball and football, but do not run track

7 play basketball and run track, but do not play football

8 students play all three sports

68 students play in at least one of the three sports

Explain in words how to find the total number of students who play football.

## Math 8 Topics - Part 1

Absolute Value

Decimals - Standard numeral

Decimals - Round

Decimals - Compare

Decimals - Add

Decimals - Subtract

Decimals - Multiply

Decimals - Divide

Decimals - Word problems

Factors - Prime factorization

Factors - GCF

Factors - LCM

Equations - Add & Subtract

Equations - Multiply & Divide

Equations - 2-Step

Exponents

Fractions - Reduce

Fractions - To decimal  
Fractions - From decimal  
Fractions - Compare  
Fractions - Add  
Fractions - Subtract  
Fractions - Multiply  
Fractions - Divide  
Geometry - Parallel lines/transversal  
Interest - Compute  
Inequalities - Add & Subtract  
Inequalities - Multiply & Divide  
Inequalities - 2-Step  
Measurement - Metric system  
Measurement - Perimeter  
Measurement - Circumference  
Measurement - Area  
Measurement - Surface area  
Monomials - Combine  
Percent - From decimal  
Percent - From fraction  
Percent - Increase/decrease  
Percent - Solve  
Percent - To decimal  
Percent - To fraction  
Percent - Word problems  
Probability - Arrangements  
Probability - Dependent events  
Probability - Factorial notation  
Probability - Independent events  
Probability - Permutation notation  
Properties - Identify  
Proportions - Similar triangles  
Proportions - Solve  
Pythagorean Theorem  
Rational Numbers - Add  
Rational Numbers - Divide  
Rational Numbers - Multiply  
Rational Numbers - Subtract  
Scientific Notation  
Square Roots  
Statistic - Mean  
Statistics - Median  
Statistics - Mode  
Statistics - Range  
Trigonometry - sin; cos; tan  
Volume - prism; cylinder  
Volume - pyramid; cone; sphere

# Math 8 Topics – Part 2

Angles

Exponents - Divide

Exponents - Multiply

Exponents

Factors - Prime Factorization

Fractions - Compare

Geometry - Perimeter

Graphs

Inequalities

Measurement

Numbers to Scientific Notation

Operational Algorithms

Order of Operations

Parabolas

Percent - Word Problems

Percent - from Fraction

Probability - Independent Events

Probability - Permutations Counting

Ratio & Proportions

Reasoning - Patterns

Scientific Notation to Numbers

Significant Notation to Numbers

Similarity

Statistics - Mean

Transformations - Dilations

Transformations - Line Reflections

Transformations - Rotations

Transformations - Translations

Area from Coordinate Geometry

Graph - Coordinate Plane

Mathematical Reasoning - Properties

Probability - Permutations Counting

Probability - Sample Space

Probability - Tree Diagram

Pythagorean Theorem

Ratio & Proportions

Rational Numbers - Compare

Transformations - Dilations

Transformations - Translations

Trigonometry - Cosine

Trigonometry - Sine

Trigonometry - Tangent

Trigonometry

Graph - Coordinate Plane

Inequalities - Graphing  
Linear Equations  
Operational Algorithms  
Parabolas  
Statistics - Graphs  
Transformations - Graphing Dilations  
Transformations - Line Reflections Graphing  
Venn Diagrams  
Volume - Cylinder  
Word Problems - Discount & Tax

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