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| **Grade 6** | |
| **Ratios and Proportional Relationships (6.RP)** | |
| Understand ratio concepts and use ratio reasoning to solve problems. | MYP 2 Chapter 16  MYP 3 Chapters 15-16, Sections 5D-E |
| **The Number System (6.NS)** | |
| Apply and extend previous understandings of multiplication and division to divide fractions by fractions. | MYP 2 Section 6N  MYP 3 Section 3E |
| Compute fluently with multi-digit numbers and find common factors and multiples. | MYP 1 Chapters 2 & 7, Section 4H  MYP 2 Chapters 4 & 7, Sections 2H & J |
| Apply and extend previous understandings of numbers to the system of rational numbers. | MYP 1 Chapters 13 & 15, Section 6D  MYP 2 Chapters 5 & 15, Section 6D  MYP 3 Section 1D |
| **Expressions and Equations (6.EE)** | |
| Apply and extend previous understandings of arithmetic to algebraic expressions. | MYP 1 Sections 2G-H  MYP 2 Chapter 8, Sections 1D,4F  MYP 3 Chapters 4 & 6 |
| Reason about and solve one-variable equations and inequalities. | MYP 2 Chapter 10  MYP 4 Chapter 6 |
| Represent and analyse quantitative relationships between dependent and independent variables | MYP 2 Sections 8I,15C  MYP 3 Chapter 10, Section 16E |
| **Geometry (6.G)** | |
| Solve real-world and mathematical problems involving area, surface area, and volume. | MYP 1 Chapter 10  MYP 2 Chapter 12, Sections 14A-B  MYP 3 Chapter 12 |
| **Statistics and Probability (6.SP)** | |
| Develop understanding of statistical variability. | MYP 1 Chapter 18  MYP 2 Chapter 18 |
| Summarize and describe distributions. | MYP 1 Chapter 18  MYP 2 Chapter 18  MYP 4 Chapter 27 |
| **Grade 7** | |
| **Ratios and Proportional Relationships (7.RP)** | |
| Analyze proportional relationships and use them to solve real-world and mathematical problems. | MYP 2 Chapters 9 & 16  MYP 3 Chapter 5, Sections 4D,16E  MYP 4 Chapter 25 |
| **The Number System (7.NS)** | |
| Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. | MYP 1 Chapters 6 & 13  MYP 2 Chapters 5-6  MYP 3 Section 3N |
| **Expressions and Equations (7.EE)** | |
| Use properties of operations to generate equivalent expressions. | MYP 2 Sections 8F-G  MYP 3 Chapter 6  MYP 4 Chapters 4 & 14 |
| Solve real-life and mathematical problems using numerical and algebraic expressions and equations. | MYP 2 Chapters 4 & 10  MYP 3 Chapters 3 & 7  MYP 4 Chapter 6  MYP 5E Section 12B |
| **Geometry (7.G)** | |
| Draw, construct, and describe geometrical figures and describe the relationships between them. | MYP 1 Chapter 5, Section 9D  MYP 2 Sections 13I, 13A  MYP 3 Section 15F |
| Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. | MYP 1 Chapter 10, Sections 3D-E  MYP 2 Chapters 3 & 12, Sections 14A-B  MYP 3 Chapters 8, 11 & 12 |
| **Statistics and Probability (7.SP)** | |
| Use random sampling to draw inferences about a population. | MYP 2 Chapter 18  MYP 3 Chapter 18 |
| Draw informal comparative inferences about two populations. | MYP 2 Sections 18G-H  MYP 4 Section 27I |
| Investigate chance processes and develop, use, and evaluate probability models. | MYP 2 Chapter 17  MYP 3 Chapter 17 |
| **Grade 8** | |
| **The Number System (8.NS)** | |
| Know that there are numbers that are not rational, and approximate them by rational numbers. | MYP 3 Sections 3N-O  MYP 5E Section 3D |
| **Expressions and Equations (8.EE)** | |
| Work with radicals and integer exponents. | MYP 3 Chapter 6, Sections 3L-M, 7G  MYP 4 Chapter 3 |
| Understand the connections between proportional relationships, lines, and linear equations. | MYP 3 Chapter 14, Section 16E |
| Analyze and solve linear equations and pairs of simultaneous linear equations. | MYP 3 Chapter 7  MYP 4 Chapter 18, Sections 6A-C |
| **Functions (8.F)** | |
| Define, evaluate, and compare functions. | MYP 3 Chapters 10 & 14  MYP 4 Chapter 17 |
| Use functions to model relationships between quantities. | MYP 3 Chapter 14, Section 16E  MYP 4 Chapter 17 |
| **Geometry (8.G)** | |
| Understand congruence and similarity using physical models, transparencies, or geometry software. | MYP 2 Chapter 19, Sections 3F-H,11D-E  MYP 3 Chapter 19, Section 8D |
| Understand and apply the Pythagorean Theorem. | MYP 3 Chapter 20  MYP 4 Chapter 9, Section 16A |
| Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres. | MYP 3 Sections 12E-G |
| **Statistics and probability (8.SP)** | |
| Investigate patterns of association in bivariate data. | MYP 3 Section 17G  MYP 5 Chapter 24/ MYP 5E Chapter 19 |
| **High School – Number and Quantity** | |
| **The Real Number System (N-RN)** | |
| Extend the properties of exponents to rational exponents. | MYP 5E Section 1B  A&A SL Section 5A/ A&I HL Section 1A/ A&A HL Section 2A |
| Use properties of rational and irrational numbers. | MYP 5 Section 4D/ MYP 5E Section 3D  AA HL Section 9D |
| **Quantities (N-Q)** | |
| Reason quantitatively and use units to solve problems. | MYP 4 Chapters 12, 13 & 27  MYP 5 Chapter 10/ MYP 5E Chapter 7  AI SL Chapters 1 & 4/ AI HL Chapters 3 & 5 |
| **The Complex Number System (N-CN)** | |
| Perform arithmetic operations with complex numbers. | AI HL Sections 11B-F/ AA HL Chapter 4, Section 14B |
| Represent complex numbers and their operations on the complex plane. | AI HL Sections 11E-H/ AA HL Chapter 14 |
| Use complex numbers in polynomial identities and equations. | MYP 5E Section 9G  AI HL Section 11A  AA HL Sections 4A-B, 5C & H |
| **Vector and Matrix Quantities (N-VM)** | |
| Represent and model with vector quantities. | MYP 5E Sections 27A-C, & F  AI HL Chapter 10, Sections 9A & H/ AA HL Sections 12A & I, 13A-E |
| Perform operations on vectors. | MYP 5E Sections 27B-D, H-I  AI HL Sections 9B,E,G,& I/ AA HL Sections 12B,E,G, & J |
| Perform operations on matrices and use matrices in applications. | AI HL Chapters 12 & 14, Section 15D |
| **High School – Algebra** | |
| **Seeing Structure in Expressions (A-SSE)** | |
| Interpret the structure of expressions. | MYP 4 Chapters 10, 11 & 14, Sections 17D-G |
| Write expressions in equivalent forms to solve problems. | MYP 4 Chapter 21  MYP 5 Chapter 20/ MYP 5E Chapter 21  MYP 5 Section 22F/ MYP 5E Section 22F  AI SL Section 2A/ AI HL Section 4A |
| **Arithmetic with Polynomials and Rational Expressions (A-APR)** | |
| Perform arithmetic operations on polynomials. | AA HL Sections 5A-B |
| Understand the relationship between zeros and factors of polynomials. | MYP 4 Section 21E  AA HL Sections 5C,F-G,J-K |
| Use polynomial identities to solve problems. | MYP 5E Chapter 2, Section 5B  AA SL Chapter 1/ AA HL Sections 8A-B |
| Rewrite rational expressions. | CT HL Section 15D  AA SL Section 3D  AA HL Sections 5E, 6D-E |
| **Creating equations (A-CED)** | |
| Create equations that describe numbers or relationships. | MYP 4 Chapters 6, 10 & 20, Sections 17E-F  MYP 5E Chapters 12 & 23 |
| **Reasoning with Equations and Inequalities (A- REI)** | |
| Understand solving equations as a process of reasoning and explain the reasoning. | MYP 4 Section 6A-B  MYP 5 Section 7D/ MYP 5E Section 4D |
| Solve equations and inequalities in one variable. | MYP 4 Chapter 6  MYP 5E Chapter 9 |
| Solve systems of equations. | MYP 5E Chapter 11  AI Section 12H  AA HL Chapter 11 |
| Represent and solve equations and inequalities graphically. | MYP 5 Section 14A/ MYP 5E Section 11A  MYP 5E Section 12C  CT SL Section 4F/CT HL Section 4E |
| **High School - Functions** | |
| **Interpreting Functions (F-IF)** | |
| Understanding the concept of a function and use function notation. | MYP 5 Sections 22A-C/ MYP 5E Sections 20A-C |
| Interpret functions that arise in applications in terms of the context. | MYP 4 Section 21F  MYP 5 Section 25D-E /MYP 5E Section 23D-E  AI SL Section 10A/AA SL Section 11A/ AI HL Section 17A/ AA HL Section 16A |
| Analyze functions using different representations. | MYP 5 Section 25D-E/MYP 5E Sections 23D-E  MYP 5E Section 20F  MYP 5 Chapter 23/MYP 5E Chapter 21  CT HL Section 15D  AA HL Sections 5J-K, 6E  AA SL Section 6H/AI HL Section 2D/AA HL Section 3H |
| **Building Functions (F-BF)** | |
| Build a function that models a relationship between two quantities. | MYP 5 Chapter 24/ MYP 5E Chapter 22  CT HL Section 15D  AI SL Section 8E/ AA SL Section 5E/ AI HL Section 1G/ AA HL Section 2E |
| Build new functions from existing functions. | CT HL Chapter 16/ AA SL Chapter 4  CT HL Section 15F/ AA SL Section 3F  AA SL Chapter 6/ AI HL Chapter 2/ AA HL Chapter 3  AA HL Section 6A |
| **Linear, Quadratic, and Exponential Models (F-LE)** | |
| Construct and compare linear, quadratic, and exponential models and solve problems. | CT SL Sections 5A-E/ CT HL Sections 5A-E  MYP 5 Chapter 25/ MYP 5E Sections 23A-E  AA SL Section 6G/ AA HL Section 3G |
| Interpret expressions for functions in terms of the situation they model. | CT SL Section 1A/ CT HL Section 1A  AI SL Section 8E/ AA SL Section 5E/ AI HL Section 1G/ AA HL Section 2E |
| **Trigonometric functions (F-TF)** | |
| Extend the domain of trigonometric functions using the unit circle. | CT HL Sections 8A-D/ AA SL Sections 7A-D |
| Model periodic phenomena with trigonometric functions. | CT HL Sections 17D & H/ AA SL Sections 8D,9B  AA HL Section 1B |
| Prove and apply trigonometric identities. | CT HL Section 8E/ AA SL Section 7E  AA HL Section 1E |
| **High School - Geometry** | |
| **Congruence (G-CO)** | |
| Experiment with transformations in the plane. | MYP 2 Sections 19C & E  MYP 4 Chapter 19 |
| Understand congruence in terms of rigid motions. | MYP 3 Sections 19A-B  MYP 4 Sections 22A-B |
| Prove geometric theorems. | MYP 3 Sections 8C-D, 9C-E, 19C  MYP 4 Section 24B |
| Make geometric constructions. | MYP 2 Section 3I |
| **Similarity, Right Triangles, and Trigonometry (G-SRT)** | |
| Understand similarity in terms of similarity transformations. | MYP 4 Sections 22C-D  MYP 5 Section 15C/ MYP 5E Section 13C |
| Prove theorems involving similarity. | MYP 4 Sections 22D, 24B  MYP 5 Section 15C/ MYP 5E Section 13C |
| Define trigonometric ratios and solve problems involving right angles. | MYP 4 Chapter 23  MYP 5 Chapter 17/ MYP 5E Chapter 15 |
| Apply trigonometry to general triangles. | MYP 5 Chapter 18/ MYP 5E Chapter 17 |
| **Circles (G-C)** | |
| Understand and apply theorems about circles. | MYP 4 Sections 24C-F  MYP 5 Chapter 16/ MYP 5E Chapter 14 |
| Find arc lengths and areas of sectors of circles. | CT HL Sections 8A-B/ AA SL Sections 7A-B |
| **Expressing Geometric Properties with Equations (G-GPE)** | |
| Translate between the geometric description and the equation for a conic section. | MYP 5E Section 21B |
| Use coordinates to prove simple geometric theorems algebraically. | MYP 4 Sections 16A.2 & D, 17G.2  MYP 5E Sections 10A,D & E |
| **Geometric Measurement and Dimension (G-GMD)** | |
| Explain volume formulas and use them to solve problems. | MYP 3 Chapter 12, Sections 11C & F  MYP 4 Chapter 13, Section 12E |
| Visualize relationships between two-dimensional and three-dimensional objects. | AI HL Section 23F/ AA HL Section 22G |
| **Modeling with Geometry (G-MG)** | |
| Apply geometric concepts in modelling situations. | AI SL Section 4A/ AI HL Section 5A  AI SL Section 12B/ AA SL Section 14B/ AI HL Section 20B/ AA HL Section 19B |
| **High School – Statistics and Probability** | |
| **Interpreting Categorical and Quantitative Data (S-ID)** | |
| Summarize, represent, and interpret data on a single count or measurement variable. | MYP5 Chapter 20/ MYP 5E Chapter 18  AI SL Chapter 15/ AA SL Chapter 21/ AI HL Chapter 28/ AA HL Chapter 28 |
| Summarize, represent, and interpret data on two categorical and quantitative variables. | MYP 4 Section 26H  MYP 5 Chapter 21/ MYP 5E Chapter 19  AI HL Chapter 8 |
| Interpret linear models. | AI SL Chapter 5/ AA SL Chapter 19/ AI HL Chapter 7/ AA HL Chapter 26 |
| **Making Inferences and Justifying Conclusions (S-IC)** | |
| Understand and evaluate random processes underlying statistical experiments. | CT SL Section 11A/ CT HL Section 12A  AI HL Section 30H |
| Make inferences and justify conclusions from sample surveys, experiments, and observational studies. | CT SL Section 11B/ CT HL Sections 12B-C  AI HL Sections 29E-F, 30F |
| **Conditional Probability and the Rules of Probability (S-CP)** | |
| Understand independence and conditional probability and use them to interpret data. | CT SL Sections 10H-I/ CT HL Sections 11I-J |
| Use the rules of probability to compute probabilities of compound events in a uniform probability model. | MYP 5E Section 28F  CT SL Sections 10E-H/ CT HL Sections 11F-I |
| **Using Probability to Make Decisions (S-MD)** | |
| Calculate expected values and use them to solve problems. | AI SL Sections 14B-C/ AA SL Sections 20B-C/ AI HL Sections 27B-C/ AA HL Sections 27B-C |
| Use probability to evaluate outcomes of decisions. | CT SL Section 11B/ CT HL Section 12B  AI SL Section 14B/ AA SL Section 20C/ AI HL Section 27C/ AA HL Section 27C |