



Community Consolidated School District 46

565 Frederick Road, Grayslake, IL 60030

23-24 Geometry Priority Standards

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| Trimester 1 | Trimester 2 | Trimester 3 |
|---|--|--|
| Congruence | Congruence | Similarity, Right Triangles, & Trigonometry |
| Prove theorems about lines and angles. | Understand congruence in terms of rigid motions. Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure. | Define trigonometric ratios and solve problems involving right triangles. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles. |
| Expressing Geometric Properties with Equations | Understand congruence in terms of rigid motions. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent | Define trigonometric ratios and solve problems involving right triangles. Explain and use the relationship between the sine and cosine of complementary angles. |
| Use coordinates to prove simple geometric theorems algebraically. | Understand congruence in terms of rigid motions. Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions. | Define trigonometric ratios and solve problems involving right triangles. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. |
| Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems. | Prove geometric theorems. Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180 degrees; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point. | Apply trigonometry to general triangles. Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles. |
| | Prove theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals. | Expressing Geometric Properties with Equations |
| | Similarity, Right Triangles, & Trigonometry | Use coordinates to prove simple geometric theorems algebraically. Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula. |
| | Understand similarity in terms of similarity transformations. and explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides | |
| | Understand similarity in terms of similarity transformations. Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar. | |
| | Prove theorems involving similarity. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. | |
| | Expressing Geometric Properties with Equations | |
| | Use coordinates to prove simple geometric theorems algebraically. Find the point on a directed line segment between two given points that partitions the segment in a given ratio. | |
| | Use coordinates to prove simple geometric theorems algebraically. | |
| | Prove theorems involving similarity. Prove theorems about triangles. | |