

Lesson 1

- GE.1.a Describe a point, line, ray, line segment, and plane
- GE.1.b Identify points, lines, rays, segments, and planes
- GE.1.c Identify symbols associated with points, lines, rays, segments, and planes
- GE.1.d Define the terms equal, similar, congruent, collinear, endpoint, and geometry
- GE.1.e Draw and label a line segment, ray, line, and plane

Lesson 2

- GE.2.a Define the terms coplanar, plane geometry, and solid geometry
- GE.2.b Define a set, intersection, union, empty or null set, proper subset, improper subset, element, complement, $n(A)$, and universal set
- GE.2.c Identify the symbols for set, intersection, union, empty or null set, proper subset, improper subset, element, not an element, complement, $n(A)$, and universal set

Lesson 3

- GE.3.a Define angle, protractor, degree, and vertex
- GE.3.b Measure given angles with a protractor
- GE.3.c Draw angles of a given measure
- GE.3.d Identify angles using Greek letters, 3-letter names, and 1-letter names
- GE.3.e Differentiate between \angle and $m\angle$

Lesson 4

- GE.4.a Classify angles as acute, obtuse, straight, or reflex
- GE.4.b Identify and explain the meaning of the right angle indicator

Lesson 5

- GE.5.a Define the terms parallel, perpendicular, bisector, midpoint, and bisect
- GE.5.b Identify the symbols for parallel and perpendicular
- GE.5.c Construct the perpendicular bisector of a line segment
- GE.5.d Construct the bisector of an angle

Lesson 6

- GE.6.a Identify and write Greek letters alpha, beta, gamma, and delta
- GE.6.b Describe and identify adjacent angles, vertical angles, supplementary angles, and complementary angles

Lesson 7

- GE.7.a Describe transversal, interior angles, exterior angles, corresponding angles, alternate angles, alternate exterior angles, and alternate interior angles
- GE.7.b Identify congruent pairs of angles formed by a set of parallel lines and a transversal
- GE.7.c Describe a postulate and converse

Lesson 8

- GE.8.a Describe perimeter, quadrilateral, rectangle, parallelogram, rhombus, trapezoid, square, and interior angle
- GE.8.b State the number of degrees in the interior angles of a triangle and a quadrilateral

Lesson 9

- GE.9.a Define the terms area, height, and base
- GE.9.b Find the area of a rectangle, parallelogram, triangle, square, and trapezoid

Lesson 10

- GE.10.a Define the terms equilateral, equiangular, isosceles, and scalene
- GE.10.b Define the terms obtuse, right, and acute as they relate to triangles
- GE.10.c Explain why the sum of the lengths of the shorter two sides of a triangle must be greater than the length of the longest side of the triangle
- GE.10.d Demonstrate the use of hash marks to show congruent line segments or congruent angles

Lesson 11

- GE.11.a Define the terms polygon, concave polygon, convex polygon, regular polygon, pentagon, hexagon, octagon, decagon, dodecagon, interior angle, and exterior angle
- GE.11.b Calculate the sum of the measures of the interior angles of a polygon
- GE.11.c State the measure of one interior angle of a regular polygon
- GE.11.d State that the sum of the measures of the exterior angles of a polygon is 360 degrees

Lesson 12

- GE.12.a Define the terms circle, center, chord, radius, diameter, tangent, secant, sector, arc, sphere, ellipse, central angle, minor arc, major arc, intercepted arc, and inscribed angle
- GE.12.b State the relationship between the measures of a central and an inscribed angle in a circle

Lesson 13

- GE.13.a State the formula for the area of a circle
- GE.13.b Find the area of a circle

Lesson 14

- GE.14.a Define the terms face, edge, and vertex as they relate to solid shapes
- GE.14.b Define the terms cube and cylinder
- GE.14.c Find the volume of a rectangular solid
- GE.14.d Find the volume of a cylinder

Lesson 15

- GE.15.a Define the terms altitude and slant height
GE.15.b Define the terms pyramid, cone, triangular prism, and sphere
GE.15.c Find the volume of a pyramid
GE.15.d Find the volume of a cone
GE.15.e Find the volume of a triangular prism
GE.15.f Find the volume of a sphere

Lesson 16

- GE.16.a Find the surface area of any rectangular solid
GE.16.b Find the surface area of a pyramid
GE.16.c Find the surface area of a cylinder

Lesson 17

- GE.17.a Define the term radical
GE.17.b Perform addition and subtraction operations with terms containing radicals
GE.17.c Perform multiplication and division operations with terms containing radicals
GE.17.d Simplify radical expressions by removing all square factors from under the radical sign
GE.17.e Find decimal approximations of irrational roots using a calculator

Lesson 18

- GE.18.a Define the terms leg and hypotenuse in reference to a right triangle
GE.18.b State the Pythagorean theorem
GE.18.c Use the Pythagorean theorem to find the missing side of a right triangle when two sides are given
GE.18.d State the converse of the Pythagorean theorem
GE.18.e Determine if a triangle is right when given the lengths of the three sides

Lesson 19

- GE.19.a Rationalize the denominator of a fraction (one-term denominator)

Lesson 20

- GE.20.a State the proportional relationship between one leg and the hypotenuse on a 45° - 45° - 90° triangle
GE.20.b State the proportional relationship between one leg of a 45° - 45° - 90° triangle and the other leg
GE.20.c State the lengths of the remaining sides of a 45° - 45° - 90° triangle when given the length of one side
GE.20.d Determine whether a triangle has angle measures of 45° - 45° - 90° based on the side lengths

Lesson 21

- GE.21.a State the proportional relationships among the three sides of a 30° - 60° - 90° triangle
GE.21.b Find the length of any side of a 30° - 60° - 90° triangle given any other side
GE.21.c Determine whether a triangle has angle measures of 30° - 60° - 90° based on the side lengths

Lesson 22

- GE.22.a State the Property of Symmetry: if $A = B$, then $B = A$
GE.22.b State the Reflexive Property: $A = A$
GE.22.c State the Transitive Property: if $A = B$ and $B = C$, then $A = C$
GE.22.d Define the terms axiom, postulate, and theorem

Lesson 23

- GE.23.a Identify corresponding parts of a pair of congruent or similar triangles
GE.23.b Define the term remote interior angle

Lesson 24

- GE.24.a Prove a pair of triangles congruent using SSS
GE.24.b Prove a pair of triangles congruent using SAS

Lesson 25

- GE.25.a Prove a pair of triangles congruent using ASA
GE.25.b Prove a pair of triangles congruent using AAS
GE.25.c Describe CPCTRC
GE.25.d Identify corresponding parts of congruent triangles
GE.25.e State the amplified parallelogram theorem
GE.25.f Apply the amplified parallelogram theorem

Lesson 26

- GE.26.a Prove two right triangles congruent by HL
GE.26.b Prove two right triangles congruent by HA
GE.26.c Prove two right triangles congruent by LA
GE.26.d Prove two right triangles congruent by LL

Lesson 27

- GE.27.a Define the term similar
GE.27.b Define the AA postulate
GE.27.c Prove two triangles similar using the AA postulate
GE.27.d State the ratio of corresponding sides in pairs of similar polygons
GE.27.e Find the lengths of missing sides in pairs of similar polygons when the ratio of corresponding sides is known

Lesson 28

- GE.28.a Translate a graph horizontally and/or vertically using integer movements
- GE.28.b Reflect a graph across the x - or y -axis
- GE.28.c Reflect a graph across horizontal and vertical lines that are not axes
- GE.28.d Rotate a graph about the origin
- GE.28.e Rotate a graph about a point other than the origin
- GE.28.f Dilate a graph about its center
- GE.28.g Combine two or more transformations of one graph
- GE.28.h Describe a transformation, given a before and an after graph

Lesson 29

- GE.29.a Define the terms adjacent and opposite
- GE.29.b Define the trigonometric ratios sine, cosine, and tangent
- GE.29.c Give sine, cosine, and tangents of angles in triangles with given side lengths

Lesson 30

- GE.30.a Define the trigonometric ratios secant, cosecant, and cotangent
- GE.30.b State the secant, cosecant, and tangent in triangles with given side lengths
- GE.30.c State the Pythagorean identity