

Chapter 7 Review Questions



Studying for a chapter examination is a personal process, one which nobody else can do for you. Simply take the time to review what you have done. Here are the new terms in Chapter 7.

Acute angle [7.2]	Great circle [7.6]	Reflection [7.1]
Acute triangle [7.3]	Half-line [7.1]	Regular polygon [7.2]
Adjacent angles [7.2]	Horizontal line [7.2]	Rhombus [7.2]
Adjacent side [7.4]	Hyperbolic geometry [7.6]	Right angle [7.2]
Alternate exterior angles [7.2]	Hypotenuse [7.4]	Right triangle [7.3]
Alternate interior angles [7.2]	Inverse tangent [7.5]	Saccheri quadrilateral [7.6]
Angle [7.2]	Inverse trigonometric ratios [7.5]	Scalene triangle [7.3]
Angle of depression [7.5]	Isosceles triangle [7.3]	Similar figures [7.1]
Angle of elevation [7.5]	Isosceles triangle property [7.3]	Similar triangle theorem [7.4]
Axiom [7.1]	Legs of a triangle [7.5]	Similar triangles [7.4]
Base angles [7.3]	Line [7.1]	Similarity [7.1]
Base of a triangle [7.3]	Line segment [7.1]	Sine [7.5]
Bolyai-Lobachevski geometry [7.6]	Line of symmetry [7.1]	Square [7.2]
Compass [7.1]	Lobachevskian postulate [7.6]	Straight angle [7.2]
Complementary angles [7.2]	Non-Euclidean geometries [7.1, 7.6]	Straightedge [7.1]
Congruent [7.1]	Obtuse angle [7.2]	Sum of the measures of angles in a triangle [7.3]
Congruent angles [7.2]	Obtuse triangle [7.3]	Supplementary angles [7.2]
Congruent triangles [7.3]	Opposite side [7.4]	Surface [7.1]
Construct [7.1]	Parallel lines [7.1]	Symmetry (line) [7.1]
Corresponding angles [7.2, 7.4]	Parallelogram [7.2]	Tangent [7.5]
Corresponding parts [7.3]	Perpendicular lines [7.2]	Theorem [7.1]
Corresponding sides [7.4]	Plane [7.1]	Transformation [7.1]
Cosine [7.5]	Point [7.1]	Transformational geometry [7.1]
Degree [7.2]	Polygon [7.2]	Transversal [7.2]
Divine proportion [7.6]	Postulate [7.1]	Trapezoid [7.2]
Elliptic geometry [7.6]	Projective geometry [7.6]	Triangle [7.3]
Equal angles [7.2]	Protractor [7.2]	Trigonometric ratios [7.5]
Equilateral triangle [7.3]	Pseudosphere [7.6]	Undefined terms [7.1]
Euclidean geometry [7.1]	Pythagorean theorem [7.5]	Vertex (pl vertices) [7.2]
Euclid's postulates [7.1]	Quadrilateral [7.2]	Vertex angle [7.3]
Exterior angle [7.3]	Ray [7.1]	Vertical angles [7.2]
Exterior angle property [7.3]	Rectangle [7.2]	Vertical line [7.2]
Golden ratio [7.6]		
Golden rectangle [7.6]		

If you can describe the term, read on to the next one; if you cannot, then look it up in the text (the section number is shown in brackets). Next, study the types of problems listed at the end of Chapter 7.

TYPES OF PROBLEMS

- Construct line segments. [7.1]
- Construct circles, given the radius. [7.1]
- Construct parallel lines. [7.1]
- Find a line of symmetry for a given piece of art. [7.1]
- Decide whether a given picture is symmetric. [7.1]
- Visualize objects in three dimensions. [7.1]
- Classify polygons with three to twelve sides. [7.2]
- Construct an angle congruent to a given angle. [7.2]
- Classify angles. [7.2]
- Classify quadrilaterals [7.2]
- Identify vertical, horizontal, intersecting, and parallel lines. [7.2]
- Name the corresponding parts of congruent triangles. [7.3]
- Find the measure of the third angle of a triangle. [7.3]
- Find the measure of the exterior angles of a triangle. [7.3]
- Construct a triangle congruent to a given triangle. [7.3]
- Classify triangles and use the terminology associated with triangle classifications. [7.3]
- Use algebra to find the measures of angles in a triangle. [7.3]
- Decide whether a pair of given triangles is similar. [7.4]
- List all six angles for a given pair of triangles. [7.4]
- List all six sides of a given pair of triangles [7.4]
- Given a right triangle, find the length of a missing side. [7.4]
- Given similar triangles, find the length of one of the sides. [7.4]
- Show that a given pair of triangles is similar. [7.4]
- Solve applied problems using similar triangles. [7.4]
- Evaluate a trigonometric ratio. [7.5]
- Find the sine, cosine, and tangent for a given angle. [7.5]
- Find $\sin^{-1}x$, $\cos^{-1}x$, and $\tan^{-1}x$. [7.5]
- Solve applied problems using triangles. [7.5]
- Know the terminology associated with right triangles. [7.5]
- Work applied problems involving the golden ratio. [7.6]
- Decide whether a figure is a Saccheri quadrilateral. [7.6]

Once again, see if you can verbalize (to yourself) how to do each of the listed types of problems.

Work all of Chapter 7 Review Questions (whether they are assigned or not). Work through all of the problems before looking at the answers, and *then* correct each of the problems. The entire solution is shown in the answer section at the back of the text. If you worked the problem correctly, move on to the next problem, but if you did not work it correctly (or you did not know what to do), look back in the chapter to study the procedure, or ask your instructor.

Finally, go back over the homework problems you have been assigned. If you worked a problem correctly, move on the next problem, but if you missed it on your homework, then you should look back in the book or talk to your instructor about how to work the problem.

If you follow these steps, you should be successful with your review of this chapter.