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Geometry Readiness Packet

Rising 10th Graders • 60 Days • 5 Questions Per Day

Student Name: _____

Teacher / Parent: _____

Answers are located at the back of this packet.

How to Use This Packet

This packet prepares rising 10th graders for Geometry by reviewing the essential algebra skills and foundational geometry concepts needed for success. Complete one page (5 questions) per day for 60 days.

Tips for Success:

- Complete one day per day — no rush, no pressure!
- Show all work — don't just write the final answer.
- Try all 5 questions before checking the Answer Key.
- The Answer Key is at the back — use it to check work after each day.
- Review any missed concepts before moving on to the next day.

Topics by Week:

Week 1	Algebra Review — Order of Operations, Solving Equations & Solving Geometry Formulas
Week 2	Points, Lines, Planes & Measuring Segments and Angles
Week 3	Angle Relationships — Complementary, Supplementary, Vertical Angles & Parallel Lines
Week 4	Perimeter, Area & Circumference of Basic Figures
Week 5	The Pythagorean Theorem & Special Right Triangles
Week 6	The Coordinate Plane — Distance, Midpoint & Slope
Week 7	Polygons & Triangles — Classification, Angle Sums & Exterior Angles
Week 8	Congruence & Similarity — Scale Factor, Proportions & Ratios of Area
Week 9	Quadrilaterals — Parallelograms, Rectangles, Rhombuses, Trapezoids & Kites
Week 10	Circles — Circumference, Area, Arcs & Inscribed Angles
Week 11	Surface Area & Volume of 3D Solids
Week 12	Comprehensive Geometry Readiness Review

Day 1 — Order of Operations & Evaluating Expressions

Name: _____

1. Evaluate: $3 + 5 \times 2^2$

Answer: _____

2. Evaluate: $(7 - 3)^2 \div 4$

Answer: _____

3. Evaluate $2x + 5$ when $x = 6$.

Answer: _____

4. Evaluate $x^2 - 3x$ when $x = 4$.

Answer: _____

5. Simplify: $-4 + 2(3 - 7)$

Answer: _____

Score: ____ / 5

Day 2 — Solving One- & Two-Step Equations

Name: _____

1. Solve: $x + 9 = 15$

Answer: _____

2. Solve: $3x = 21$

Answer: _____

3. Solve: $x/4 = 5$

Answer: _____

4. Solve: $2x - 3 = 11$

Answer: _____

5. Solve: $-x + 8 = 2$

Answer: _____

Score: ____ / 5

Day 3 — Solving Multi-Step Equations

Name: _____

1. Solve: 2(x + 3) = 16

Answer: _____

2. Solve: 3x + 5 = 2x + 12

Answer: _____

3. Solve: 4x − 1 = 2x + 9

Answer: _____

4. Solve: 5(x − 1) = 20

Answer: _____

5. Solve: 2x + 3 = 3x − 4

Answer: _____

Score: ____ / 5

Day 4 — Solving for a Variable (Geometry Formulas)

Name: _____

1. Solve for h: A = (1/2)bh

Answer: _____

2. Solve for r: C = 2πr

Answer: _____

3. Solve for l: P = 2l + 2w

Answer: _____

4. Solve for b: A = bh

Answer: _____

5. Solve for h: V = lwh

Answer: _____

Score: ____ / 5

Day 5 — Mixed Review — Week 1

Name: _____

1. Evaluate: $4^2 - 2 \times 3$

Answer: _____

2. Solve: $3x - 7 = 14$

Answer: _____

3. Solve: $x/2 + 5 = 9$

Answer: _____

4. Solve for w: $P = 2l + 2w$

Answer: _____

5. Evaluate: $2(5 - 2)^2$

Answer: _____

Score: ____ / 5

Day 6 — Points, Lines, Planes & Basic Notation

Name: _____

1. How many points are needed to define a line?

Answer: _____

2. How many non-collinear points determine a plane?

Answer: _____

3. What is the term for a flat surface that extends forever in all directions?

Answer: _____

4. What is the intersection of two distinct lines, if they intersect?

Answer: _____

5. What do we call a part of a line with two endpoints?

Answer: _____

Score: ____ / 5

Day 7 — Segment Addition & Midpoints

Name: _____

1. If AB = 7 and BC = 5, and B is between A and C, find AC.

Answer: _____

2. M is the midpoint of segment AB. If AM = 8, find AB.

Answer: _____

3. If AC = 20 and AB = 12, with B between A and C, find BC.

Answer: _____

4. The endpoints of a segment on a number line are at 4 and 10. Find the coordinate of the midpoint.

Answer: _____

5. If AB = 3x and BC = 15, and AB = BC, find x.

Answer: _____

Score: ____ / 5

Day 8 — Measuring & Classifying Angles

Name: _____

1. What is the measure of a right angle?

Answer: _____

2. Classify an angle that measures 120°.

Answer: _____

3. Classify an angle that measures 45°.

Answer: _____

4. What is the measure of a straight angle?

Answer: _____

5. If an angle measures 35°, find its complement.

Answer: _____

Score: ____ / 5

Day 9 — Angle Addition & Angle Bisectors

Name: _____

1. ∠ABC is split into two angles measuring 30° and 40°. Find m∠ABC.

Answer: _____

2. Ray BD bisects ∠ABC. If m∠ABC = 80°, find m∠ABD.

Answer: _____

3. If m∠ABD = 25° and m∠DBC = 25°, and BD bisects ∠ABC, find m∠ABC.

Answer: _____

4. m∠ABC = 90° and ray BD bisects it. Find m∠DBC.

Answer: _____

5. m∠1 + m∠2 = m∠ABC. If m∠1 = 20° and m∠ABC = 65°, find m∠2.

Answer: _____

Score: ____ / 5

Day 10 — Mixed Review — Week 2

Name: _____

1. How many points determine a unique line?

Answer: _____

2. M is the midpoint of AB. If AB = 24, find AM.

Answer: _____

3. Classify a 95° angle.

Answer: _____

4. Find the complement of a 70° angle.

Answer: _____

5. Ray BD bisects a 100° angle. Find the measure of each half.

Answer: _____

Score: ____ / 5

Day 11 — Complementary & Supplementary Angles

Name: _____

1. Two angles are complementary. If one is 38°, find the other.

Answer: _____

2. Two angles are supplementary. If one is 110°, find the other.

Answer: _____

3. Two angles are supplementary and congruent. Find each angle.

Answer: _____

4. Two angles are complementary, and one is twice the other. Find both angles.

Answer: _____

5. ∠A and ∠B are supplementary, with m∠A = 3x and m∠B = 2x. Find x.

Answer: _____

Score: ____ / 5

Day 12 — Vertical Angles & Linear Pairs

Name: _____

1. What is true about a pair of vertical angles?

Answer: _____

2. Two angles form a linear pair. What is the sum of their measures?

Answer: _____

3. Two vertical angles measure 4x° and 80°. Find x.

Answer: _____

4. Two angles form a linear pair: one is 3x and the other is 2x + 30. Find x.

Answer: _____

5. ∠1 and ∠3 are vertical angles, and m∠1 = 65°. Find m∠3.

Answer: _____

Score: ____ / 5

Day 13 — Parallel Lines & Transversals

Name: _____

1. When a transversal crosses two parallel lines, what is true about corresponding angles?

Answer: _____

2. What is true about alternate interior angles formed by a transversal crossing parallel lines?

Answer: _____

3. What is true about co-interior (same-side interior) angles when lines are parallel?

Answer: _____

4. What is true about alternate exterior angles when lines are parallel?

Answer: _____

5. Two parallel lines are cut by a transversal. One angle measures 70°. Find its corresponding angle.

Answer: _____

Score: ____ / 5

Day 14 — Solving for Angles with Parallel Lines

Name: _____

1. Two parallel lines are cut by a transversal. One co-interior angle is 65°. Find the other.

Answer: _____

2. Alternate interior angles measure (2x + 10)° and 70°. Find x.

Answer: _____

3. Corresponding angles measure (3x)° and 60°. Find x.

Answer: _____

4. Same-side interior angles measure 4x° and 5x°, and are supplementary. Find x.

Answer: _____

5. Alternate exterior angles measure (5x − 10)° and 80°. Find x.

Answer: _____

Score: ____ / 5

Day 15 — Mixed Review — Week 3

Name: _____

1. Two angles are complementary, and one is 3 times the other. Find both angles.

Answer: _____

2. Two vertical angles measure (3x + 10)° and 70°. Find x.

Answer: _____

3. Two parallel lines have co-interior angles of 110° and x°. Find x.

Answer: _____

4. Two angles form a linear pair: one is x and the other is 4x. Find x.

Answer: _____

5. Corresponding angles formed by a transversal across parallel lines are always ___.

Answer: _____

Score: ____ / 5

Day 16 — Perimeter & Area of Triangles and Rectangles

Name: _____

1. Find the perimeter of a rectangle with length 8 and width 5.

Answer: _____

2. Find the area of a rectangle with length 8 and width 5.

Answer: _____

3. Find the area of a triangle with base 10 and height 6.

Answer: _____

4. Find the perimeter of a square with side length 7.

Answer: _____

5. Find the area of a square with side length 9.

Answer: _____

Score: ____ / 5

Day 17 — Area of Parallelograms & Trapezoids

Name: _____

1. Find the area of a parallelogram with base 12 and height 5.

Answer: _____

2. Find the area of a trapezoid with bases 6 and 10 and height 4.

Answer: _____

3. Find the area of a trapezoid with bases 8 and 12 and height 5.

Answer: _____

4. A parallelogram has area 48 and base 8. Find its height.

Answer: _____

5. Find the area of a parallelogram with base 15 and height 4.

Answer: _____

Score: ____ / 5

Day 18 — Circumference & Area of Circles

Name: _____

1. Find the circumference of a circle with radius 5 (use π ≈ 3.14).

Answer: _____

2. Find the area of a circle with radius 4 (use π ≈ 3.14).

Answer: _____

3. Find the circumference of a circle with diameter 10 (use π ≈ 3.14).

Answer: _____

4. Find the area of a circle with diameter 6 (use π ≈ 3.14).

Answer: _____

5. A circle has circumference 18.84 (use π ≈ 3.14). Find its radius.

Answer: _____

Score: ____ / 5

Day 19 — Composite Figures — Area

Name: _____

1. A 6-by-4 rectangle has a right triangle with base 4 and height 3 attached to one of its 4-unit sides. Find the total area of the combined figure.

Answer: _____

2. A 10-by-6 rectangle has a 2-by-2 square removed from one corner. Find the area of the remaining figure.

Answer: _____

3. A square with side length 6 has a right triangle with legs 6 and 4 attached to one side. Find the total area of the figure.

Answer: _____

4. A figure is made of an 8-by-3 rectangle with a triangle of base 8 and height 4 on top. Find the total area.

Answer: _____

5. A 12-by-8 rectangle has a 4-by-3 rectangle cut out from a corner. Find the area of the remaining figure.

Answer: _____

Score: ____ / 5

Day 20 — Mixed Review — Weeks 1–4

Name: _____

1. Solve: 3x + 2 = 17

Answer: _____

2. Find the area of a triangle with base 14 and height 5.

Answer: _____

3. Two angles are supplementary, and one is 130°. Find the other.

Answer: _____

4. Find the circumference of a circle with radius 7 (use π ≈ 3.14).

Answer: _____

5. M is the midpoint of segment AB, and AB = 18. Find AM.

Answer: _____

Score: ____ / 5

Day 21 — The Pythagorean Theorem

Name: _____

1. State the Pythagorean Theorem.

Answer: _____

2. Find the hypotenuse of a right triangle with legs 6 and 8.

Answer: _____

3. Find the hypotenuse of a right triangle with legs 5 and 12.

Answer: _____

4. A right triangle has hypotenuse 13 and one leg 5. Find the other leg.

Answer: _____

5. Find the hypotenuse of a right triangle with legs 9 and 12.

Answer: _____

Score: ____ / 5

Day 22 — Converse of the Pythagorean Theorem & Pythagorean Triples

Name: _____

1. Is a triangle with sides 3, 4, 5 a right triangle?

Answer: _____

2. Is a triangle with sides 5, 6, 7 a right triangle?

Answer: _____

3. Is a triangle with sides 8, 15, 17 a right triangle?

Answer: _____

4. Name the Pythagorean triple that is double the (3, 4, 5) triple.

Answer: _____

5. Is a triangle with sides 7, 24, 25 a right triangle?

Answer: _____

Score: ____ / 5

Day 23 — 45-45-90 Triangles

Name: _____

1. In a 45-45-90 triangle with legs of length 5, find the hypotenuse.

Answer: _____

2. In a 45-45-90 triangle with hypotenuse 8, find the length of each leg.

Answer: _____

3. A square has a diagonal of length 10. Find the side length of the square.

Answer: _____

4. In a 45-45-90 triangle with legs of length 7, find the hypotenuse.

Answer: _____

5. A square has side length 6. Find the length of its diagonal.

Answer: _____

Score: ____ / 5

Day 24 — 30-60-90 Triangles

Name: _____

1. In a 30-60-90 triangle, the side opposite the 30° angle is 5. Find the side opposite the 60° angle.

Answer: _____

2. In the same triangle, find the hypotenuse.

Answer: _____

3. In a 30-60-90 triangle, the hypotenuse is 12. Find the side opposite the 30° angle.

Answer: _____

4. In a 30-60-90 triangle, the side opposite the 60° angle is $9\sqrt{3}$. Find the side opposite the 30° angle.

Answer: _____

5. An equilateral triangle has side length 8. Find the height of the triangle.

Answer: _____

Score: ____ / 5

Day 25 — Mixed Review — Week 5

Name: _____

1. Find the hypotenuse of a right triangle with legs 8 and 15.

Answer: _____

2. Is a triangle with sides 9, 12, 16 a right triangle?

Answer: _____

3. A 45-45-90 triangle has legs of length 9. Find the hypotenuse.

Answer: _____

4. A 30-60-90 triangle has a short leg of 4. Find the hypotenuse.

Answer: _____

5. A right triangle has legs 10 and 24. Find the hypotenuse.

Answer: _____

Score: ____ / 5

Day 26 — The Distance Formula

Name: _____

1. Find the distance between (0, 0) and (3, 4).

Answer: _____

2. Find the distance between (1, 2) and (4, 6).

Answer: _____

3. Find the distance between (−2, 3) and (2, 0).

Answer: _____

4. Find the distance between (0, 0) and (6, 8).

Answer: _____

5. Find the distance between (3, 1) and (3, 7).

Answer: _____

Score: ____ / 5

Day 27 — The Midpoint Formula

Name: _____

1. Find the midpoint of the segment with endpoints (2, 4) and (6, 8).

Answer: _____

2. Find the midpoint of the segment with endpoints (0, 0) and (10, 4).

Answer: _____

3. Find the midpoint of the segment with endpoints (−3, 5) and (3, −1).

Answer: _____

4. One endpoint of a segment is (1, 2) and the midpoint is (4, 5). Find the other endpoint.

Answer: _____

5. Find the midpoint of the segment with endpoints (−4, −6) and (2, 2).

Answer: _____

Score: ____ / 5

Day 28 — Slope & Parallel/Perpendicular Lines

Name: _____

1. Find the slope between (1, 2) and (4, 8).

Answer: _____

2. Find the slope between (3, 5) and (3, −1).

Answer: _____

3. A line has slope 2. What is the slope of a line parallel to it?

Answer: _____

4. A line has slope 3/4. What is the slope of a line perpendicular to it?

Answer: _____

5. Find the slope between (−2, 1) and (4, 1).

Answer: _____

Score: ____ / 5

Day 29 — Equations of Lines in Coordinate Geometry

Name: _____

1. Write the equation of a line with slope 2 passing through (0, 3).

Answer: _____

2. Write the equation of the horizontal line through (3, 5).

Answer: _____

3. Write the equation of the vertical line through (−2, 4).

Answer: _____

4. Find the slope of the line y = −3x + 7.

Answer: _____

5. Does the point (2, 5) lie on the line y = 2x + 1?

Answer: _____

Score: ____ / 5

Day 30 — Mixed Review — Weeks 5–6

Name: _____

1. Find the distance between (0, 0) and (8, 6).

Answer: _____

2. Find the midpoint of the segment with endpoints (4, −2) and (−2, 6).

Answer: _____

3. Find the slope between (2, 5) and (5, 11).

Answer: _____

4. A right triangle has legs 7 and 24. Find the hypotenuse.

Answer: _____

5. A 30-60-90 triangle has hypotenuse 14. Find the shortest side.

Answer: _____

Score: ____ / 5

Day 31 — Classifying Polygons

Name: _____

1. How many sides does a hexagon have?

Answer: _____

2. How many sides does an octagon have?

Answer: _____

3. What is a polygon with all sides and angles congruent called?

Answer: _____

4. How many sides does a pentagon have?

Answer: _____

5. What is the sum of the interior angles of a quadrilateral?

Answer: _____

Score: ____ / 5

Day 32 — Sum of Interior & Exterior Angles of Polygons

Name: _____

1. What is the formula for the sum of the interior angles of a polygon with n sides?

Answer: _____

2. Find the sum of the interior angles of a pentagon.

Answer: _____

3. Find the measure of each interior angle of a regular hexagon.

Answer: _____

4. What is the sum of the exterior angles of any convex polygon?

Answer: _____

5. Find the measure of each exterior angle of a regular octagon.

Answer: _____

Score: ____ / 5

Day 33 — Classifying Triangles

Name: _____

1. Classify a triangle with sides 5, 5, 5.

Answer: _____

2. Classify a triangle with sides 4, 4, 7.

Answer: _____

3. Classify a triangle with angles 90°, 45°, 45°.

Answer: _____

4. Classify a triangle with angles 100°, 40°, 40°.

Answer: _____

5. Classify a triangle with all sides of different lengths.

Answer: _____

Score: ____ / 5

Day 34 — Triangle Angle Sum & Exterior Angle Theorem

Name: _____

1. What is the sum of the interior angles of a triangle?

Answer: _____

2. A triangle has angles 50° and 70°. Find the third angle.

Answer: _____

3. An exterior angle of a triangle equals the sum of which two angles?

Answer: _____

4. A triangle has interior angles of 40° and 60°. Find the exterior angle at the third vertex.

Answer: _____

5. Two angles of a triangle are congruent, and the third angle is 40°. Find the two congruent angles.

Answer: _____

Score: ____ / 5

Day 35 — Mixed Review — Week 7

Name: _____

1. Find the sum of the interior angles of a heptagon (7 sides).

Answer: _____

2. Classify a triangle with angles 90°, 30°, 60°.

Answer: _____

3. Find the measure of each interior angle of a regular pentagon.

Answer: _____

4. A triangle has angles 35° and 85°. Find the third angle.

Answer: _____

5. Find the measure of each exterior angle of a regular decagon (10 sides).

Answer: _____

Score: ____ / 5

Day 36 — Congruent Figures & Corresponding Parts

Name: _____

1. If two figures are congruent, what is true about their corresponding sides and angles?

Answer: _____

2. Triangle ABC ≅ Triangle DEF. Which side corresponds to side AB?

Answer: _____

3. If ∠A ≅ ∠D and AB = DE = 6, what does this tell you about corresponding parts?

Answer: _____

4. What symbol is used to represent “congruent to”?

Answer: _____

5. If two triangles are congruent, are their areas equal?

Answer: _____

Score: ____ / 5

Day 37 — Similar Figures & Scale Factor

Name: _____

1. If two figures are similar, what is true about their corresponding angles?

Answer: _____

2. A scale factor of 2 means corresponding sides of the second figure are how many times those of the first?

Answer: _____

3. Two similar rectangles have a scale factor of 3. If the smaller rectangle has a side of 4, find the corresponding side of the larger rectangle.

Answer: _____

4. Two similar triangles have a scale factor of 1/2. If a side of the larger triangle is 10, find the corresponding side of the smaller triangle.

Answer: _____

5. If the scale factor between two similar figures is 1, what does that mean?

Answer: _____

Score: ____ / 5

Day 38 — Solving Proportions for Similar Figures

Name: _____

1. Two similar triangles have corresponding sides 6 and 9, and 8 and x. Find x.

Answer: _____

2. Two similar rectangles have sides 4 and 6, and 10 and x. Find x.

Answer: _____

3. A 4-in by 6-in photo is enlarged so the 4-in side becomes 10 in. Find the new length of the 6-in side.

Answer: _____

4. Two similar polygons have a ratio of corresponding sides of 2:5. If a side of the smaller polygon is 8, find the corresponding side of the larger polygon.

Answer: _____

5. Solve the proportion: 5/x = 15/24

Answer: _____

Score: ____ / 5

Day 39 — Ratios of Perimeters & Areas of Similar Figures

Name: _____

1. Two similar figures have a scale factor of 2. Find the ratio of their perimeters.

Answer: _____

2. Two similar figures have a scale factor of 3. Find the ratio of their areas.

Answer: _____

3. Two similar triangles have a scale factor of 1:4. If the area of the smaller triangle is 5, find the area of the larger triangle.

Answer: _____

4. Two similar squares have side lengths 3 and 6. Find the ratio of their areas.

Answer: _____

5. Two similar figures have areas in the ratio 25:4. Find the ratio of their corresponding side lengths.

Answer: _____

Score: ____ / 5

Day 40 — Mixed Review — Weeks 7–8

Name: _____

1. Find the sum of the interior angles of an octagon.

Answer: _____

2. Classify a triangle with sides 6, 6, 10.

Answer: _____

3. Two similar triangles have a scale factor of 3. If one side of the smaller triangle is 5, find the corresponding side of the larger triangle.

Answer: _____

4. A triangle has angles 20° and 100°. Find the third angle.

Answer: _____

5. Two similar figures have a scale factor of 2. Find the ratio of their areas.

Answer: _____

Score: ____ / 5

Day 41 — Properties of Parallelograms

Name: _____

1. In a parallelogram, what is true about opposite sides?

Answer: _____

2. In a parallelogram, what is true about opposite angles?

Answer: _____

3. In a parallelogram, what is true about consecutive angles?

Answer: _____

4. Do the diagonals of a parallelogram bisect each other?

Answer: _____

5. A parallelogram has one angle of 70°. Find the measure of the angle consecutive to it.

Answer: _____

Score: ____ / 5

Day 42 — Rectangles, Rhombuses & Squares

Name: _____

1. What additional property does a rectangle have that a general parallelogram does not?

Answer: _____

2. What additional property does a rhombus have that a general parallelogram does not?

Answer: _____

3. A square is both a rectangle and a _____.

Answer: _____

4. In a rectangle, are the diagonals congruent?

Answer: _____

5. In a rhombus, what is true about the diagonals?

Answer: _____

Score: ____ / 5

Day 43 — Trapezoids & Kites

Name: _____

1. What is the definition of a trapezoid?

Answer: _____

2. What are the parallel sides of a trapezoid called?

Answer: _____

3. In an isosceles trapezoid, what is true about the legs?

Answer: _____

4. What is true about the diagonals of a kite?

Answer: _____

5. A trapezoid has bases of length 6 and 10. Find the length of the midsegment.

Answer: _____

Score: ____ / 5

Day 44 — Finding Missing Angles & Sides in Quadrilaterals

Name: _____

1. A parallelogram has consecutive angles 3x° and 2x°. Find x.

Answer: _____

2. A rectangle has a diagonal of 10 and one side of 6. Find the other side.

Answer: _____

3. In a parallelogram, one side is 7 and the perimeter is 26. Find the length of each of the other pair of sides.

Answer: _____

4. A rhombus has side lengths 5x − 3 and 2x + 9. Find x.

Answer: _____

5. In an isosceles trapezoid, one base angle is 70°. Find the adjacent base angle on the same base.

Answer: _____

Score: ____ / 5

Day 45 — Mixed Review — Week 9

Name: _____

1. In a parallelogram, opposite angles are _____.

Answer: _____

2. A rectangle has diagonals of length 12. Find the length of each diagonal segment from a vertex to the center.

Answer: _____

3. What is true about the diagonals of a rhombus?

Answer: _____

4. A trapezoid has bases 5 and 9. Find the midsegment length.

Answer: _____

5. A parallelogram has consecutive angles 4x° and 5x°. Find x.

Answer: _____

Score: ____ / 5

Day 46 — Parts of a Circle

Name: _____

1. What is the term for a segment from the center of a circle to a point on the circle?

Answer: _____

2. What is the term for a segment that passes through the center with both endpoints on the circle?

Answer: _____

3. How is the diameter related to the radius?

Answer: _____

4. What is the term for a line that intersects a circle at exactly one point?

Answer: _____

5. What is the term for a part of the circumference of a circle?

Answer: _____

Score: ____ / 5

Day 47 — Circumference & Arc Length

Name: _____

1. Find the circumference of a circle with radius 6 (use π ≈ 3.14).

Answer: _____

2. A circle has diameter 14. Find its circumference (use π ≈ 3.14).

Answer: _____

3. A circle has radius 10. Find the arc length of a 90° arc (use π ≈ 3.14).

Answer: _____

4. A circle has circumference 62.8 (use π ≈ 3.14). Find its radius.

Answer: _____

5. Find the arc length of a 180° arc on a circle with radius 5 (use π ≈ 3.14).

Answer: _____

Score: ____ / 5

Day 48 — Area of Circles & Sectors

Name: _____

1. Find the area of a circle with radius 8 (use π ≈ 3.14).

Answer: _____

2. A circle has diameter 12. Find its area (use π ≈ 3.14).

Answer: _____

3. Find the area of a 90° sector of a circle with radius 6 (use π ≈ 3.14).

Answer: _____

4. A circle has area 78.5 (use π ≈ 3.14). Find its radius.

Answer: _____

5. Find the area of a semicircle with radius 4 (use π ≈ 3.14).

Answer: _____

Score: ____ / 5

Day 49 — Central Angles & Inscribed Angles

Name: _____

1. How does the measure of a central angle compare to its intercepted arc?

Answer: _____

2. An inscribed angle is _____ the measure of its intercepted arc.

Answer: _____

3. A central angle measures 80°. Find the measure of its intercepted arc.

Answer: _____

4. An inscribed angle intercepts an arc of 100°. Find the measure of the inscribed angle.

Answer: _____

5. The sum of the central angles in a circle is _____.

Answer: _____

Score: ____ / 5

Day 50 — Mixed Review — Week 10

Name: _____

1. Find the circumference of a circle with radius 9 (use π ≈ 3.14).

Answer: _____

2. Find the area of a circle with radius 5 (use π ≈ 3.14).

Answer: _____

3. An inscribed angle intercepts a 60° arc. Find the inscribed angle's measure.

Answer: _____

4. A circle has diameter 20. Find its radius.

Answer: _____

5. Find the arc length of a 120° arc on a circle with radius 9 (use π ≈ 3.14).

Answer: _____

Score: ____ / 5

Day 51 — Volume of Prisms & Cylinders

Name: _____

1. Find the volume of a rectangular prism with dimensions 4 × 5 × 6.

Answer: _____

2. Find the volume of a cube with side length 3.

Answer: _____

3. Find the volume of a cylinder with radius 3 and height 7 (use π ≈ 3.14).

Answer: _____

4. Find the volume of a triangular prism with a triangular base area of 12 and a length of 10.

Answer: _____

5. A rectangular prism has volume 60 and base area 12. Find its height.

Answer: _____

Score: ____ / 5

Day 52 — Volume of Pyramids & Cones

Name: _____

1. Find the volume of a pyramid with base area 24 and height 9.

Answer: _____

2. Find the volume of a cone with radius 3 and height 8 (use $\pi \approx 3.14$, $V = (1/3)\pi r^2 h$).

Answer: _____

3. A square pyramid has a base side of 6 and height 10. Find its volume.

Answer: _____

4. Find the volume of a cone with radius 6 and height 5 (use $\pi \approx 3.14$).

Answer: _____

5. A pyramid has volume 60 and base area 20. Find its height.

Answer: _____

Score: ____ / 5

Day 53 — Surface Area of Prisms & Cylinders

Name: _____

1. Find the surface area of a cube with side length 4.

Answer: _____

2. Find the surface area of a rectangular prism with dimensions 2 × 3 × 4.

Answer: _____

3. Find the lateral surface area of a cylinder with radius 3 and height 5 (use π ≈ 3.14, LSA = 2πrh).

Answer: _____

4. Find the total surface area of a cylinder with radius 2 and height 5 (use π ≈ 3.14, SA = 2πrh + 2πr²).

Answer: _____

5. Find the surface area of a rectangular prism with dimensions 5 × 5 × 5.

Answer: _____

Score: ____ / 5

Day 54 — Surface Area & Volume of Pyramids and Spheres

Name: _____

1. Find the volume of a sphere with radius 3 (use π ≈ 3.14, $V = (4/3)\pi r^3$).

Answer: _____

2. Find the surface area of a sphere with radius 5 (use π ≈ 3.14, $SA = 4\pi r^2$).

Answer: _____

3. A square pyramid has a base side of 6 and a slant height of 5. Find the area of one triangular face.

Answer: _____

4. Using the pyramid from the previous question, find the total area of all 4 triangular faces.

Answer: _____

5. Find the volume of a sphere with radius 6 (use π ≈ 3.14).

Answer: _____

Score: ____ / 5

Day 55 — Mixed Review — Week 11

Name: _____

1. Find the volume of a rectangular prism with dimensions 3 × 4 × 5.

Answer: _____

2. Find the volume of a cylinder with radius 2 and height 10 (use π ≈ 3.14).

Answer: _____

3. Find the volume of a cone with radius 3 and height 4 (use π ≈ 3.14).

Answer: _____

4. Find the surface area of a cube with side length 5.

Answer: _____

5. Find the volume of a sphere with radius 3 (use π ≈ 3.14).

Answer: _____

Score: ____ / 5

Day 56 — Comprehensive Review I

Name: _____

1. Solve: 2x + 5 = 17

Answer: _____

2. Two angles are complementary, and one is 35°. Find the other.

Answer: _____

3. Find the area of a triangle with base 12 and height 5.

Answer: _____

4. Find the hypotenuse of a right triangle with legs 9 and 12.

Answer: _____

5. Find the distance between (0, 0) and (6, 8).

Answer: _____

Score: ____ / 5

Day 57 — Comprehensive Review II

Name: _____

1. Find the sum of the interior angles of a hexagon.

Answer: _____

2. Classify a triangle with sides 5, 5, 8.

Answer: _____

3. Two similar triangles have a scale factor of 4. If a side of the smaller triangle is 3, find the corresponding side of the larger triangle.

Answer: _____

4. In a parallelogram, one angle is 60°. Find the measure of the angle consecutive to it.

Answer: _____

5. Find the circumference of a circle with radius 4 (use π ≈ 3.14).

Answer: _____

Score: ____ / 5

Day 58 — Comprehensive Review III

Name: _____

1. Solve for h in A = (1/2)bh, given A = 24 and b = 8.

Answer: _____

2. A 45-45-90 triangle has legs of length 6. Find the hypotenuse.

Answer: _____

3. Find the midpoint of the segment with endpoints (2, 3) and (8, 9).

Answer: _____

4. Find the volume of a rectangular prism with dimensions 4 × 3 × 5.

Answer: _____

5. An inscribed angle intercepts an arc of 90°. Find the inscribed angle’s measure.

Answer: _____

Score: ____ / 5

Day 59 — Comprehensive Review IV

Name: _____

1. Two parallel lines have alternate interior angles of (2x + 5)° and 65°. Find x.

Answer: _____

2. Find the area of a trapezoid with bases 7 and 11 and height 4.

Answer: _____

3. A 30-60-90 triangle has a hypotenuse of 10. Find the shortest side.

Answer: _____

4. Find the volume of a cylinder with radius 4 and height 6 (use π ≈ 3.14).

Answer: _____

5. Two similar figures have a scale factor of 3. Find the ratio of their areas.

Answer: _____

Score: ____ / 5

Day 60 — Geometry Ready! (Final Comprehensive Review)

Name: _____

1. Find the area of a circle with radius 6 (use π ≈ 3.14).

Answer: _____

2. Solve: 3(x − 2) = 15

Answer: _____

3. Find the slope between (1, 4) and (5, 12).

Answer: _____

4. A right triangle has legs 7 and 24. Find the hypotenuse.

Answer: _____

5. The sum of the interior angles of a polygon is 1080°. How many sides does the polygon have?

Answer: _____

Score: ____ / 5

ANSWER KEY

LatePass.com Geometry Readiness Packet — Rising 12th Grade

Check your answers after completing each day!

Day 1 — Order of Operations & Evaluating Expressions

1. 23
2. 4
3. 17
4. 4
5. −12

Day 2 — Solving One- & Two-Step Equations

1. x = 6
2. x = 7
3. x = 20
4. x = 7
5. x = 6

Day 3 — Solving Multi-Step Equations

1. x = 5
2. x = 7
3. x = 5
4. x = 5
5. x = 7

Day 4 — Solving for a Variable (Geometry Formulas)

1. h = 2A/b
2. r = C/(2π)
3. l = (P − 2w)/2
4. b = A/h
5. h = V/(lw)

Day 5 — Mixed Review — Week 1

1. 10
2. x = 7
3. x = 8
4. w = (P − 2l)/2
5. 18

Day 6 — Points, Lines, Planes & Basic Notation

1. 2
2. 3
3. A plane
4. A point
5. A segment

Day 7 — Segment Addition & Midpoints

1. 12
2. 16
3. 8
4. 7
5. x = 5

Day 8 — Measuring & Classifying Angles

1. 90°
2. Obtuse
3. Acute
4. 180°
5. 55°

Day 9 — Angle Addition & Angle Bisectors

1. 70°
2. 40°
3. 50°
4. 45°
5. 45°

Day 10 — Mixed Review — Week 2

1. 2
2. 12
3. Obtuse
4. 20°
5. 50°

Day 11 — Complementary & Supplementary Angles

1. 52°
2. 70°
3. 90° each
4. 30° and 60°
5. x = 36

Day 12 — Vertical Angles & Linear Pairs

1. They are congruent (equal in measure)
2. 180°
3. x = 20
4. x = 30
5. 65°

Day 13 — Parallel Lines & Transversals

1. They are congruent
2. They are congruent
3. They are supplementary
4. They are congruent
5. 70°

Day 14 — Solving for Angles with Parallel Lines

1. 115°
2. x = 30
3. x = 20
4. x = 20
5. x = 18

Day 15 — Mixed Review — Week 3

1. 22.5° and 67.5°
2. x = 20
3. x = 70
4. x = 36
5. Congruent

Day 16 — Perimeter & Area of Triangles and Rectangles

1. 26
2. 40
3. 30
4. 28
5. 81

Day 17 — Area of Parallelograms & Trapezoids

1. 60
2. 32
3. 50
4. 6
5. 60

Day 18 — Circumference & Area of Circles

1. 31.4
2. 50.24
3. 31.4
4. 28.26
5. 3

Day 19 — Composite Figures — Area

1. 30
2. 56
3. 48
4. 40
5. 84

Day 20 — Mixed Review — Weeks 1–4

1. x = 5
2. 35
3. 50°
4. 43.96
5. 9

Day 21 — The Pythagorean Theorem

1. $a^2 + b^2 = c^2$, for a right triangle with legs a, b and hypotenuse c
2. 10
3. 13
4. 12
5. 15

Day 22 — Converse of the Pythagorean Theorem & Pythagorean Triples

1. Yes
2. No
3. Yes
4. (6, 8, 10)
5. Yes

Day 23 — 45-45-90 Triangles

1. $5\sqrt{2}$
2. $4\sqrt{2}$
3. $5\sqrt{2}$
4. $7\sqrt{2}$
5. $6\sqrt{2}$

Day 24 — 30-60-90 Triangles

1. $5\sqrt{3}$
2. 10
3. 6
4. 9
5. $4\sqrt{3}$

Day 25 — Mixed Review — Week 5

1. 17
2. No
3. $9\sqrt{2}$
4. 8
5. 26

Day 26 — The Distance Formula

1. 5
2. 5
3. 5
4. 10
5. 6

Day 27 — The Midpoint Formula

1. (4, 6)
2. (5, 2)
3. (0, 2)
4. (7, 8)
5. $(-1, -2)$

Day 28 — Slope & Parallel/Perpendicular Lines

1. 2
2. Undefined
3. 2
4. $-4/3$
5. 0

Day 29 — Equations of Lines in Coordinate Geometry

1. $y = 2x + 3$
2. $y = 5$
3. $x = -2$
4. -3
5. Yes

Day 30 — Mixed Review — Weeks 5–6

1. 10
2. (1, 2)
3. 2
4. 25
5. 7

Day 31 — Classifying Polygons

1. 6
2. 8
3. A regular polygon
4. 5
5. 360°

Day 32 — Sum of Interior & Exterior Angles of Polygons

1. $(n - 2) \times 180°$
2. 540°
3. 120°
4. 360°
5. 45°

Day 33 — Classifying Triangles

1. Equilateral
2. Isosceles
3. Right (and isosceles)
4. Obtuse (and isosceles)
5. Scalene

Day 34 — Triangle Angle Sum & Exterior Angle Theorem

1. 180°
2. 60°
3. The two remote (non-adjacent) interior angles
4. 100°
5. 70° each

Day 35 — Mixed Review — Week 7

1. 900°
2. Right
3. 108°
4. 60°
5. 36°

Day 36 — Congruent Figures & Corresponding Parts

1. They are congruent (equal)
2. Side DE
3. Corresponding sides and angles of congruent triangles are equal
4. ≅
5. Yes

Day 37 — Similar Figures & Scale Factor

1. They are congruent
2. 2 times as long
3. 12
4. 5
5. The figures are congruent (the same size)

Day 38 — Solving Proportions for Similar Figures

1. x = 12
2. x = 15
3. 15 in
4. 20
5. x = 8

Day 39 — Ratios of Perimeters & Areas of Similar Figures

1. 2:1
2. 9:1
3. 80
4. 1:4
5. 5:2

Day 40 — Mixed Review — Weeks 7–8

1. 1080°
2. Isosceles
3. 15
4. 60°
5. 4:1

Day 41 — Properties of Parallelograms

1. They are parallel and congruent
2. They are congruent
3. They are supplementary
4. Yes
5. 110°

Day 42 — Rectangles, Rhombuses & Squares

1. All four angles are right angles (90°)
2. All four sides are congruent
3. Rhombus
4. Yes
5. They are perpendicular

Day 43 — Trapezoids & Kites

1. A quadrilateral with exactly one pair of parallel sides
2. Bases
3. They are congruent
4. They are perpendicular
5. 8

Day 44 — Finding Missing Angles & Sides in Quadrilaterals

1. x = 36
2. 8
3. 6
4. x = 4
5. 70°

Day 45 — Mixed Review — Week 9

1. Congruent
2. 6
3. They are perpendicular and bisect each other
4. 7
5. x = 20

Day 46 — Parts of a Circle

1. Radius
2. Diameter
3. Diameter = 2 × radius
4. A tangent
5. An arc

Day 47 — Circumference & Arc Length

1. 37.68
2. 43.96
3. 15.7
4. 10
5. 15.7

Day 48 — Area of Circles & Sectors

1. 200.96
2. 113.04
3. 28.26
4. 5
5. 25.12

Day 49 — Central Angles & Inscribed Angles

1. They are equal (the same measure)
2. Half
3. 80°
4. 50°
5. 360°

Day 50 — Mixed Review — Week 10

1. 56.52
2. 78.5
3. 30°
4. 10
5. 18.84

Day 51 — Volume of Prisms & Cylinders

1. 120
2. 27
3. 197.82
4. 120
5. 5

Day 52 — Volume of Pyramids & Cones

1. 72
2. 75.36
3. 120
4. 188.4
5. 9

Day 53 — Surface Area of Prisms & Cylinders

1. 96
2. 52
3. 94.2
4. 87.92
5. 150

Day 54 — Surface Area & Volume of Pyramids and Spheres

1. 113.04
2. 314
3. 15
4. 60
5. 904.32

Day 55 — Mixed Review — Week 11

1. 60
2. 125.6
3. 37.68
4. 150
5. 113.04

Day 56 — Comprehensive Review I

1. x = 6
2. 55°
3. 30
4. 15
5. 10

Day 57 — Comprehensive Review II

1. 720°
2. Isosceles
3. 12
4. 120°
5. 25.12

Day 58 — Comprehensive Review III

1. h = 6
2. 6√2
3. (5, 6)
4. 60
5. 45°

Day 59 — Comprehensive Review IV

1. x = 30
2. 36
3. 5
4. 301.44
5. 9:1

Day 60 — Geometry Ready! (Final Comprehensive Review)

1. 113.04
2. x = 7
3. 2
4. 25
5. 8