

Matthie Recalculation Path

Geometry and Measurement I

Student Forms

Use one form when a specific misconception needs confirmation or a fresh recheck. Each chapter begins on a new page, and each page contains two editable student forms.

44 forms • 11 chapters • 2 forms per page

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROUTE FINDER

GM1-C01-Q1

Chapter 1 | Measurement Foundations Length Units and Estimation

Name: _____ Grade: _____ Date: _____

1. Which is longer: 1 metre or 1 centimetre?*Choose a method, solve, and show the measurement or geometric relationship you used.*

CUT OR SEPARATE HERE

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C01-Q2

Chapter 1 | Measurement Foundations Length Units and Estimation

Name: _____ Grade: _____ Date: _____

1. A string begins at the 7.5 cm mark and ends at the 19.2 cm mark on a ruler. A student says the string is 19.2 cm long. Is the student correct? Find the actual length.*Check each step, correct the work, and explain the error.*

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CONFIRMATION**GM1-C01-Q3****Chapter 1 | Measurement Foundations Length Units and Estimation**

Name: _____ Grade: _____ Date: _____

1. Convert 2.6 m to centimetres.*Solve independently and show enough work to verify your answer.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROAD TEST**GM1-C01-Q4****Chapter 1 | Measurement Foundations Length Units and Estimation**

Name: _____ Grade: _____ Date: _____

1. A rope is 6 metres long. Write the measurement with its number and unit.*Choose a method without a chapter cue. Show and check your reasoning.*

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ROUTE FINDER

GM1-C02-Q1

Chapter 2 | Geometry Language Points Lines Angles Polygons and Solids

Name: _____ Grade: _____ Date: _____

1. A triangle is drawn flat on a piece of paper. Is it 2-D or 3-D?*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C02-Q2

Chapter 2 | Geometry Language Points Lines Angles Polygons and Solids

Name: _____ Grade: _____ Date: _____

1. A shape has four straight sides, but one corner is rounded instead of coming to a sharp point. A student says it is a quadrilateral because it has four sides. Is the student correct? Explain.*Check each step, correct the work, and explain the error.*

CONFIRMATION

GM1-C02-Q3

Chapter 2 | Geometry Language Points Lines Angles Polygons and Solids

Name: _____ Grade: _____ Date: _____

1. A figure extends forever in both directions with no endpoints. Name the figure.

Solve independently and show enough work to verify your answer.

CUT OR SEPARATE HERE

ROAD TEST

GM1-C02-Q4

Chapter 2 | Geometry Language Points Lines Angles Polygons and Solids

Name: _____ Grade: _____ Date: _____

1. A figure has two endpoints. Name it.

Choose a method without a chapter cue. Show and check your reasoning.

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROUTE FINDER

GM1-C03-Q1

Chapter 3 | Perimeter and Area Foundations

Name: _____ Grade: _____ Date: _____

1. A shape has four sides measuring 3 cm, 4 cm, 3 cm, and 4 cm. What is the total distance around it?*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C03-Q2

Chapter 3 | Perimeter and Area Foundations

Name: _____ Grade: _____ Date: _____

1. A rectangle is 14 m by 5 m. A student says the area is 38 m^2 . Is the student correct? Find the actual area.*Check each step, correct the work, and explain the error.*

CONFIRMATION

GM1-C03-Q3

Chapter 3 | Perimeter and Area Foundations

Name: _____ Grade: _____ Date: _____

1. A frame is 16 cm by 9 cm. Find the border length.

Solve independently and show enough work to verify your answer.

CUT OR SEPARATE HERE

ROAD TEST

GM1-C03-Q4

Chapter 3 | Perimeter and Area Foundations

Name: _____ Grade: _____ Date: _____

1. A ribbon goes around a poster. Should you find perimeter or area?

Choose a method without a chapter cue. Show and check your reasoning.

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROUTE FINDER

GM1-C04-Q1

Chapter 4 | Area of Parallelograms Triangles and Trapezoids

Name: _____ Grade: _____ Date: _____

1. What does it mean for two lines to be perpendicular?*Choose a method, solve, and show the measurement or geometric relationship you used.*

CUT OR SEPARATE HERE

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C04-Q2

Chapter 4 | Area of Parallelograms Triangles and Trapezoids

Name: _____ Grade: _____ Date: _____

1. A trapezoid has bases 5 cm and 11 cm, with height 4 cm. A student uses only the 5 cm base and writes $(5 \times 4) \div 2 = 10 \text{ cm}^2$ for the area. Is the student correct? Find the actual area.*Check each step, correct the work, and explain the error.*

CONFIRMATION

GM1-C04-Q3

Chapter 4 | Area of Parallelograms Triangles and Trapezoids

Name: _____ Grade: _____ Date: _____

1. Parallelogram: $b = 14\text{ cm}$, $h = 7\text{ cm}$. Find area.

Solve independently and show enough work to verify your answer.

CUT OR SEPARATE HERE

ROAD TEST

GM1-C04-Q4

Chapter 4 | Area of Parallelograms Triangles and Trapezoids

Name: _____ Grade: _____ Date: _____

1. Parallelogram: $b = 7\text{ cm}$, $h = 4\text{ cm}$. Find area.

Choose a method without a chapter cue. Show and check your reasoning.

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROUTE FINDER

GM1-C05-Q1

Chapter 5 | Composite 2D Shapes

Name: _____ Grade: _____ Date: _____

1. Two rectangles have areas 25 cm^2 and 15 cm^2 . Find their combined area.*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C05-Q2

Chapter 5 | Composite 2D Shapes

Name: _____ Grade: _____ Date: _____

1. A rectangular park is 20 m by 12 m. A 7 m by 4 m pond sits inside it. A student adds the two areas together to find the total park space. Is the student correct? Find the actual play space.*Check each step, correct the work, and explain the error.*

CONFIRMATION

GM1-C05-Q3

Chapter 5 | Composite 2D Shapes

Name: _____ Grade: _____ Date: _____

1. A rectangle has area 42 cm² and a triangle has area 15 cm². Find total.

Solve independently and show enough work to verify your answer.

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ROAD TEST

GM1-C05-Q4

Chapter 5 | Composite 2D Shapes

Name: _____ Grade: _____ Date: _____

1. Two included areas are 24 cm² and 17 cm². Find total.

Choose a method without a chapter cue. Show and check your reasoning.

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ROUTE FINDER

GM1-C06-Q1

Chapter 6 | Circles I Radius Diameter Circumference and Pi

Name: _____ Grade: _____ Date: _____

1. Multiply 3.14 by 4.*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C06-Q2

Chapter 6 | Circles I Radius Diameter Circumference and Pi

Name: _____ Grade: _____ Date: _____

1. A circular lid has a radius of 9 cm. A student writes $C = 3.14(9) = 28.26$ cm. Is the student correct? Explain how it can be determined without guessing. Then find the correct circumference.*Check each step, correct the work, and explain the error.*

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CONFIRMATION**GM1-C06-Q3****Chapter 6 | Circles I Radius Diameter Circumference and Pi**

Name: _____ Grade: _____ Date: _____

1. A circle has a radius of 14 cm. Find its diameter.*Solve independently and show enough work to verify your answer.*

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ROAD TEST**GM1-C06-Q4****Chapter 6 | Circles I Radius Diameter Circumference and Pi**

Name: _____ Grade: _____ Date: _____

1. A circle has a radius of 9 cm. Find its diameter.*Choose a method without a chapter cue. Show and check your reasoning.*

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ROUTE FINDER

GM1-C07-Q1

Chapter 7 | Circles II Area and Circular Composite Shapes

Name: _____ Grade: _____ Date: _____

1. Square the number 6.*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C07-Q2

Chapter 7 | Circles II Area and Circular Composite Shapes

Name: _____ Grade: _____ Date: _____

1. A circular coaster has a diameter of 16 cm. A student writes $A = 3.14 \times 16^2 = 803.84 \text{ cm}^2$. Is the student correct? Explain how it can be determined without fully solving the problem first. Then find the correct area.

Check each step, correct the work, and explain the error.

CONFIRMATION

GM1-C07-Q3

Chapter 7 | Circles II Area and Circular Composite Shapes

Name: _____ Grade: _____ Date: _____

1. Find the area of a circle with radius 9 cm.

Solve independently and show enough work to verify your answer.

CUT OR SEPARATE HERE

ROAD TEST

GM1-C07-Q4

Chapter 7 | Circles II Area and Circular Composite Shapes

Name: _____ Grade: _____ Date: _____

1. Find the area of a circle with radius 3 cm.

Choose a method without a chapter cue. Show and check your reasoning.

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROUTE FINDER

GM1-C08-Q1

Chapter 8 | Measuring Drawing and Classifying Angles

Name: _____ Grade: _____ Date: _____

1. What angle measure makes a right angle?*Choose a method, solve, and show the measurement or geometric relationship you used.*

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TRIPWIRE

GM1-C08-Q2

Chapter 8 | Measuring Drawing and Classifying Angles

Name: _____ Grade: _____ Date: _____

An angle clearly looks acute. A student reads the protractor and writes 128° . Is the answer reasonable? Explain.*Check each step, correct the work, and explain the error.*

CONFIRMATION

GM1-C08-Q3

Chapter 8 | Measuring Drawing and Classifying Angles

Name: _____ Grade: _____ Date: _____

1. Classify 118°.

Solve independently and show enough work to verify your answer.

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ROAD TEST

GM1-C08-Q4

Chapter 8 | Measuring Drawing and Classifying Angles

Name: _____ Grade: _____ Date: _____

1. Classify an angle of 25°.

Choose a method without a chapter cue. Show and check your reasoning.

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROUTE FINDER

GM1-C09-Q1

Chapter 9 | Angle Relationships

Name: _____ Grade: _____ Date: _____

1. What do angles on a straight line add to?*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C09-Q2

Chapter 9 | Angle Relationships

Name: _____ Grade: _____ Date: _____

Two parallel lines are cut by a transversal. One co-interior angle is 124° . A student says, ‘The other angle must also be 124° because the lines are parallel.’ Is the student correct? Explain.*Check each step, correct the work, and explain the error.*

CONFIRMATION

GM1-C09-Q3

Chapter 9 | Angle Relationships

Name: _____ Grade: _____ Date: _____

1. Find the supplement of 63°.

Solve independently and show enough work to verify your answer.

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ROAD TEST

GM1-C09-Q4

Chapter 9 | Angle Relationships

Name: _____ Grade: _____ Date: _____

1. Two angles add to 90°. What is the name for this pair of angles?

Choose a method without a chapter cue. Show and check your reasoning.

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ROUTE FINDER

GM1-C10-Q1

Chapter 10 | Triangles and Quadrilaterals

Name: _____ Grade: _____ Date: _____

1. What do the angles inside a triangle add to?*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C10-Q2

Chapter 10 | Triangles and Quadrilaterals

Name: _____ Grade: _____ Date: _____

An isosceles triangle has a top angle of 40° . A student calculates $180^\circ - 40^\circ = 140^\circ$ and says each base angle is 140° . Is the student correct? Explain and find each base angle.*Check each step, correct the work, and explain the error.*

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

CONFIRMATION**GM1-C10-Q3****Chapter 10 | Triangles and Quadrilaterals**

Name: _____ Grade: _____ Date: _____

1. A triangle has angles 52° , 61° , and x . Find x .*Solve independently and show enough work to verify your answer.*

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ROAD TEST**GM1-C10-Q4****Chapter 10 | Triangles and Quadrilaterals**

Name: _____ Grade: _____ Date: _____

1. A triangle has angles 40° , 60° , and x . Find x .*Choose a method without a chapter cue. Show and check your reasoning.*

MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

ROUTE FINDER

GM1-C11-Q1

Chapter 11 | Polygons and Interior Angle Sums

Name: _____ Grade: _____ Date: _____

1. How many sides does a pentagon have?*Choose a method, solve, and show the measurement or geometric relationship you used.*

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MATTHIE ASSESSMENT MATHEMATICS EDUCATION SERIES • RECALCULATION PATH

TRIPWIRE

GM1-C11-Q2

Chapter 11 | Polygons and Interior Angle Sums

Name: _____ Grade: _____ Date: _____

A student says, ‘A hexagon has 6 sides, so the interior angle sum is $6 \times 180^\circ = 1080^\circ$.’ Is the student correct? Explain and find the correct interior angle sum.*Check each step, correct the work, and explain the error.*

CONFIRMATION

GM1-C11-Q3

Chapter 11 | Polygons and Interior Angle Sums

Name: _____ Grade: _____ Date: _____

1. Find the interior angle sum of a heptagon.

Solve independently and show enough work to verify your answer.

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ROAD TEST

GM1-C11-Q4

Chapter 11 | Polygons and Interior Angle Sums

Name: _____ Grade: _____ Date: _____

1. Find the interior angle sum of a quadrilateral.

Choose a method without a chapter cue. Show and check your reasoning.