MATH NAVIGATOR®

ASSESSMENT RESOURCES

Geometry

AMERICA'S CHOICE®

SAVVAS LEARNING COMPANY

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Contents

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Student Materials

Pre-Test/Post-Test Administration

test administration

For the pre-test, let students know that this test will help you determine what they already know. Explain that the module will help them learn how to solve problems that seem difficult now.

For the post-test, remind students that this test will help you determine what they have learned about geometry.

Online Testing

Once your testing window has started, you can begin testing.

- Seat students individually in front of a computer.
- Give each student a piece of scratch paper.
- Make sure that students have pencils.
- Have students use their access codes to log in to the pre-test.
- Before each student begins the test, confirm that he or she is taking the correct test.

Tell students that:

- Each question will be displayed on the computer screen. Students should select the answer they think is best by clicking on the option choice and then clicking to confirm the choice.
- After students answer a question, the next question will appear on the computer screen.
- Students may choose to skip a question and flag it to come back to before ending the test.

During the test:

- Observe students as they work to make sure that they are actively engaged in the testing process.
- Support any students who seem to find the material challenging. Encourage them to make a good estimate for any problem they find difficult. You may wish to provide manipulatives.

Once students have answered all the questions, they should follow the online prompts to conclude the test.

After the pre-test if some students finish early, pair each of them with another student. Give each student a Student Book. Tell the students to read the instructions on page 1 of the Student Book and start working.

english language learners

Be aware that some English language learners (ELLs) may have difficulty with the language on the test. Make note of any students who appear to be having difficulty with vocabulary. These students may need additional help when new terminology is introduced in the module.

Paper-and-Pencil Test

- Print copies of the test and answer sheets for each student from ARO.
- Seat students individually.
- Distribute tests, answer sheets, and scratch paper.
- Make sure that students have #2 pencils.
- Instruct students to fill in the answers on their answer sheets.

During the test:

- Observe students as they work to make sure that they are actively engaged in the testing process.
- Support any students who seem to find the material challenging. Encourage them to make a good estimate for any problem they find difficult. You may wish to provide manipulatives.

After students finish, collect their tests, answer sheets, and scratch paper. You will need to upload students' answers to the ARO system so you can analyze the results.

After the pre-test if some students finish early, pair each of them with another student. Give each student a Student Book. Tell the students to read the instructions on page 1 of the Student Book and start working.

analyzing results

Irrespective of the method (online or paper-and-pencil) that you chose to administer the test, your students must be enrolled in the ARO system in order for you to obtain computer-generated reports.

These reports:

- Offer rich, instructionally-relevant information to teachers and administrators at the individual student, class, grade, school, and district levels.
- Include total test score performance information and item-level analysis for each student and for all students combined.
- Are important references in helping you to assess the misconceptions your students are struggling with and decide what concepts to focus on during the module.

For results:

- **Online Testing:** ARO will automatically generate performance reports.
- **Paper-and-Pencil Test:** Upload students' data to ARO. Once you have uploaded the data, ARO will generate performance reports.

Additional information about the online test reporting can be found on ARO.

Remember to give a copy of the reports to the students' regular mathematics teachers to help them in planning subsequent instruction.

reflection

When students have finished working on their pre- or post-tests, ask them to open the Student Book to page 1 for the pre-test and page 66 for the post-test and write a response to the reflection prompt.

english language learners

It is important to point out to ELLs the progress they have made over the course of the module. Help them look back to where they were when they started so they can see how much they have progressed with both the language and the mathematics.

Checkpoint 1 6

preparation

- Make a copy of the Checkpoint 1 lesson and answer sheet for each student.
- Seat students individually and distribute the checkpoint lesson and the answer sheet to each student.
- Ask students to put their names on their answer sheets.

setting the direction

This lesson is the first checkpoint lesson of the module. Tell students that today's lesson is a checkpoint lesson; it will help them see how well they understand the concepts they have recently learned.

Tell students to read the checkpoint problems to themselves. They should complete the problems by doing the work and circling the answers in the checkpoint lesson. Then they should fill in the answers on the answer sheet.

At the end of the lesson, collect the completed answer sheets. Enter the data from each checkpoint into ARO. Open-ended questions should be included in the summation and entered either as correct or incorrect. The report generated by ARO will help you assess whether students are on track and making sufficient progress.

checkpoint

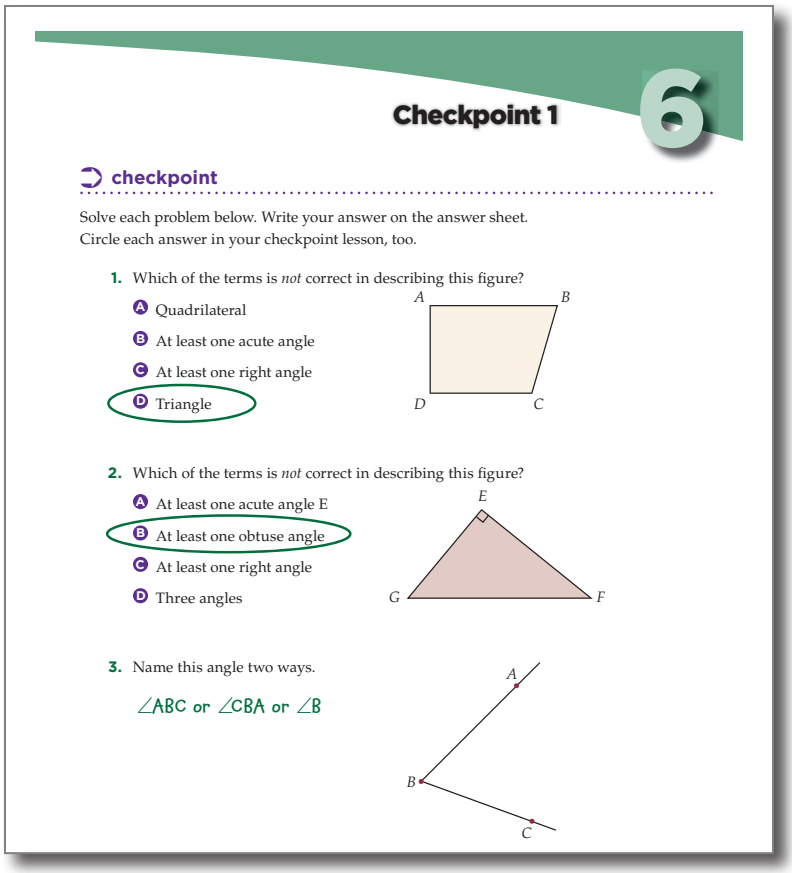
Give students 6–10 minutes to complete the problems.

This is a checkpoint lesson. Use the routine for checkpoint lessons to conduct the lesson.

Tell students that today's lesson is a checkpoint lesson, which will check how well they learned some of the topics from the module so far.

Instruct students to read the checkpoint problem to themselves.

Tell students that once they complete the checkpoint problem, they should continue on to the learning from the checkpoint task.



Checkpoint 1 6

checkpoint

Solve each problem below. Write your answer on the answer sheet.
Circle each answer in your checkpoint lesson, too.

1. Which of the terms is *not* correct in describing this figure?
   - A Quadrilateral
   - B At least one acute angle
   - C At least one right angle
   - D Triangle

   A B D C

2. Which of the terms is *not* correct in describing this figure?
   - A At least one acute angle E
   - B At least one obtuse angle
   - C At least one right angle
   - D Three angles

   E G F

3. Name this angle two ways.

   ∠ABC or ∠CBA or ∠B

   A B C

Assessment Resources, page 12

learning from the checkpoint

Explain to the group that when students choose the wrong answer, it is usually because they have a misconception or have made a common mistake. Ask students to write a sentence or two explaining the misconception or mistake that makes the answer a common wrong answer.

Learning from Problem 1

The correct answer is D.

Josh chose answer B as not describing this figure. What error might Josh have made?

learning from the checkpoint

Problem 1
The correct answer to problem 1 is D.
Josh chose answer B as not describing this figure. What error might Josh have made?

Josh did not recognize ∠B as an acute angle. Acute angles can appear in many different positions.

Assessment Resources, page 13

ERROR

Answer choice B:

Possible misconception: Josh did not recognize ∠B as an acute angle. Acute angles can appear in many different positions.

Learning from Problem 2

The correct answer is B.

Tamika chose C as not describing this figure. What error might Tamika have made?

Problem 2
The correct answer to problem 2 is B.
Tamika chose C as not describing this figure. What error might Tamika have made?

Tamika did not recognize ∠E as right angle. She couldn't use her right angle benchmark to check that.

Assessment Resources, page 13

ERROR

Answer choice C:

Possible misconception: Tamika did not recognize ∠E as a right angle. She couldn't use her right angle benchmark to check that.

Learning from Problem 3

The correct answer is ∠ABC or ∠CBA or ∠B.

Amir said ∠C and ∠B as names of the angle. What error might Amir have made?

Problem 3
The correct answer to problem 3 is ∠ABC or ∠CBA or ∠B
Amir said ∠C and ∠B as names of the angle. What error might Amir have made?

Amir named the points, not the angles. There is only one angle in this figure and it should be named as ∠ABC and/or ∠CBA and/or ∠B.

Assessment Resources, page 13

ERROR

Answer: ∠C and ∠B

Possible misconception: Amir named the points, not the angles. There is only one angle in this figure and it should be named as ∠ABC and/or ∠CBA and/or ∠B.

reflection

When you have about 2 minutes left, stop the discussion, even if they are not finished. Have students respond to the reflection prompt in the Student Book.

Checkpoint 2 14

preparation

- Make a copy of the Checkpoint 2 lesson and answer sheet for each student.
- Seat students individually and distribute the checkpoint lesson and the answer sheet to each student.
- Ask students to put their names on their answer sheets.

setting the direction

This lesson is the first checkpoint lesson of the module. Tell students that today's lesson is a checkpoint lesson; it will help them see how well they understand the concepts they have recently learned.

Tell students to read the checkpoint problems to themselves. They should complete the problems by doing the work and circling the answers in the checkpoint lesson. Then they should fill in the answers on the answer sheet.

At the end of the lesson, collect the completed answer sheets. Enter the data from each checkpoint into ARO. The report generated by ARO will help you assess whether students are on track and making sufficient progress.

checkpoint

This is a checkpoint lesson. Use the routine for checkpoints to conduct the lesson.

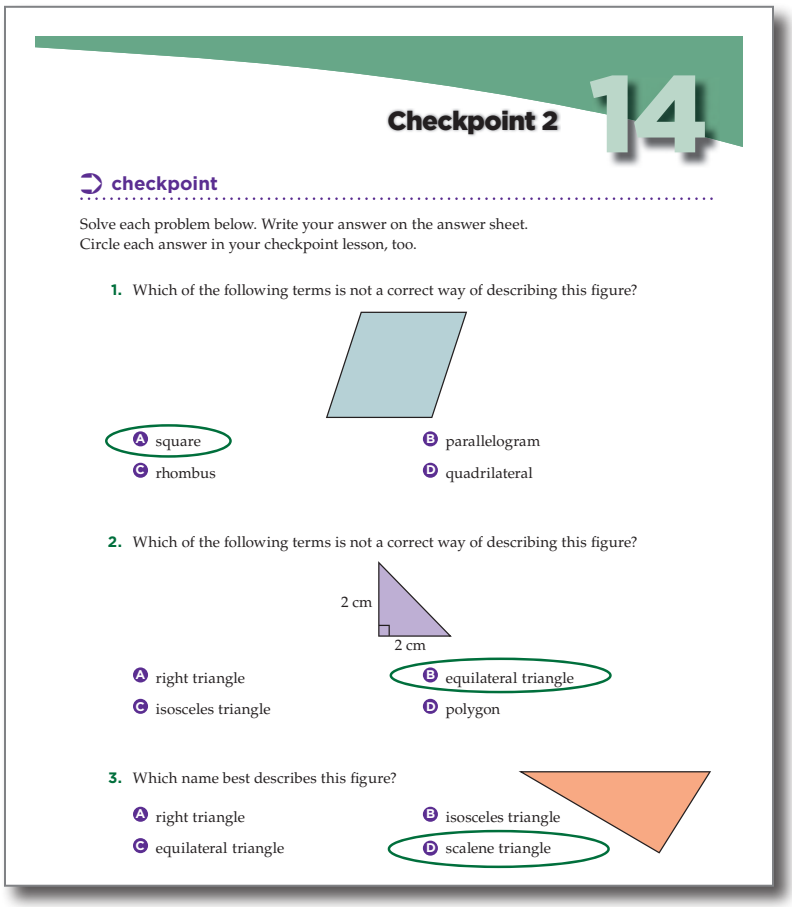
Seat students individually and ask them to put their names on their answer sheets.

Tell students that today's lesson is a checkpoint lesson, which will check how well they have learned some of the topics from the module so far.

Instruct students to read the checkpoint problems to themselves.

They should complete problems 1–3 on their own and circle their answers in their checkpoint lesson. Then fill in their answers on their answer sheet.

Once they complete the checkpoint problems, they should stop and wait for further directions.



Checkpoint 2 14

checkpoint

Solve each problem below. Write your answer on the answer sheet.
Circle each answer in your checkpoint lesson, too.

1. Which of the following terms is not a correct way of describing this figure?

A square
B parallelogram
C rhombus
D quadrilateral

2. Which of the following terms is not a correct way of describing this figure?

2 cm
2 cm

A right triangle
B equilateral triangle
C isosceles triangle
D polygon

3. Which name best describes this figure?

A right triangle
B isosceles triangle
C equilateral triangle
D scalene triangle

Assessment Resources, page 16

learning from the checkpoint

Explain to the group that when students choose the wrong answer, it is usually because they have a misconception or have made a common mistake. Then select one of the wrong answers and identify it as a "common wrong answer." Ask students to write a sentence or two explaining the misconception or mistake that makes the answer a common wrong answer.

english language learners

You may want to have students do a concept map for the word *misconception*. It may also be helpful to break the word down and examine the meaning of the prefix *mis-* and the root word *concept*.

Learning from Problem 1

The correct answer is A.

Ask students to write the incorrect answer choice C on the line.

learning from the checkpoint

Problem 1
Josh chose answer choice C.

What error would cause Josh to choose this answer?

Josh did not know a rhombus had equal sides and the opposite sides were parallel.

Assessment Resources, page 17

ERROR

Possible misconception: The student may not believe that the sides are all the same length because the corners are not all right angles, which makes the figure appear to have different lengths.

Learning from Problem 2

The correct answer is B.

Ask students to write the incorrect answer choice D on the line.

Problem 2
Tamika chose answer choice D.

What error would cause Tamika to choose this answer?

Tamika might not realize that any multi-sides figure is a polygon – thus a triangle is a polygon.

Assessment Resources, page 17

ERROR

Possible misconception: The student may select polygon since is it the only answer that does not include the word triangle.

Learning from Problem 3

The correct answer is D.

Ask students to write the incorrect answer choice B on the line.

Problem 3
Amir chose answer choice B.

What error would cause Amir to choose this answer?

Amir might think that isosceles means no sides are equal when it means two sides are equal.

Assessment Resources, page 17

ERROR

Possible misconception: The student may only recognize triangles that are oriented to sit on the "base," such as  , thus not be sure which figure this is.

english language learners

"What error would cause a student to choose this answer?" This is a challenging metacognitive question. You may need to model the thought process for answering the question first because students will probably not have had much experience with this way of thinking.

scaffolding for success

It would be helpful to draw the shape for each of the three problems on the board so that you can point to their attributes as you discuss them.

reflection

When you have about 2 minutes left, stop the discussion, even if they are not finished. Have students respond to the reflection prompt in the Student Book.

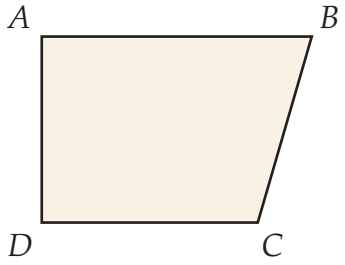
Checkpoint 1

6

checkpoint

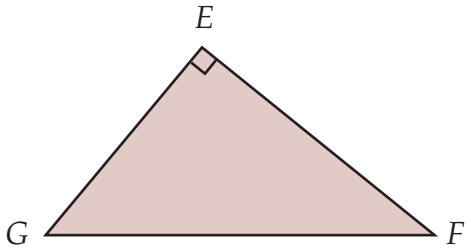
Solve each problem below. Write your answer on the answer sheet.
Circle each answer in your checkpoint lesson, too.

1. Which of the terms is *not* correct in describing this figure?



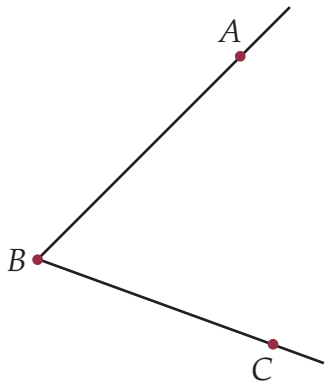
- **A** Quadrilateral
- **B** At least one acute angle
- **C** At least one right angle
- **D** Triangle

2. Which of the terms is *not* correct in describing this figure?



- **A** At least one acute angle
- **B** At least one obtuse angle
- **C** At least one right angle
- **D** Three angles

3. Name this angle two ways.



learning from the checkpoint

Problem 1

The correct answer to problem 1 is .

Josh chose answer as not describing this figure. What error might Josh have made?

Problem 2

The correct answer to problem 2 is .

Tamika chose as not describing this figure. What error might Tamika have made?

Problem 3

The correct answer to problem 3 is

Amir said B as names of the angle. What error might Amir have made?

Class Information

School _____

City _____ State _____

Teacher (mathematics class) _____

Student Information

Grade _____

First name _____

Last name _____

Date of birth _____ (month) _____ (day) _____(year)

Male ❑ Female ❑

How many years have you been at this school? _____ years

Do you usually speak English at home? Yes ❑ No ❑

Does anyone in your home usually speak a language other than English?

Yes ❑ No ❑

Name _____

	A	B	C	D
1.	❍	❍	❍	❍
2.	❍	❍	❍	❍

Problem **3.**

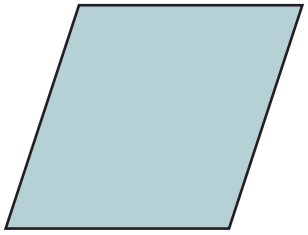
Write a complete solution below to this problem.

Checkpoint 2 14

checkpoint

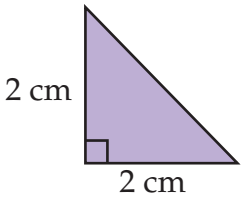
Solve each problem below. Write your answer on the answer sheet.
Circle each answer in your checkpoint lesson, too.

1. Which of the following terms is not a correct way of describing this figure?



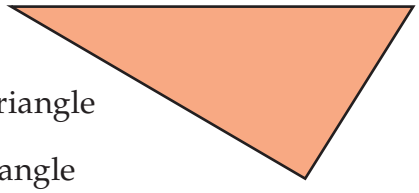
- **A** square
- **B** parallelogram
- **C** rhombus
- **D** quadrilateral

2. Which of the following terms is not a correct way of describing this figure?



- **A** right triangle
- **B** equilateral triangle
- **C** isosceles triangle
- **D** polygon

3. Which name best describes this figure?



- **A** right triangle
- **B** isosceles triangle
- **C** equilateral triangle
- **D** scalene triangle

learning from the checkpoint

Problem 1

Josh chose answer choice _____.

What error would cause Josh to choose this answer?

Problem 2

Tamika chose answer choice _____.

What error would cause Tamika to choose this answer?

Problem 3

Amir chose answer choice _____.

What error would cause Amir to choose this answer?

Class Information

School _____

City _____ State _____

Teacher (mathematics class) _____

Student Information

Grade _____

First name _____

Last name _____

Date of birth _____ (month) _____ (day) _____(year)

Male ❑ Female ❑

How many years have you been at this school? _____ years

Do you usually speak English at home? Yes ❑ No ❑

Does anyone in your home usually speak a language other than English?

Yes ❑ No ❑

Answer Sheet

Name _____

	A	B	C	D
1.	❍	❍	❍	❍
2.	❍	❍	❍	❍
3.	❍	❍	❍	❍