Coach's Corner Assessment

Coach's Corner provides practice and allows you to self-reflect on your conceptual understanding of the *Lesson* skills. Assessment of your work in *Coach's Corner* will be combined into two overall completion marks, one for *Workbook A* and one for *Workbook B*. Your work for *Coach's Corner* in each *Workbook* will be assessed according to the rubric provided.

Category	Strategy and Procedures	Response to Questions
	The student...	*The student...*
4	• uses efficient and effective strategies to solve the problem(s)	• provides detailed explanations and follows directions appropriately to complete all questions
3	• uses effective strategies to solve the problem(s)	• provides clear explanations and follows directions adequately to complete most questions
2	• uses effective strategies inconsistently to solve the problem(s)	• provides incomplete explanations and follows some directions to complete a few questions
1	• does not use effective strategies to solve the problem(s)	• provides incomplete explanations and does not follow directions to complete some questions

Complete *Coach's Corner* exercises using your best work, showing all relevant steps needed to arrive at your solution. Refer to the *Module* to review lesson instructions. Contact your teacher for assistance or clarification as needed, or to investigate the topic further.

Check and correct your work using the solutions provided in *Equipment Room* in the *Module*.

Coach's Corner is worth 8 marks.

After you have assessed your work, reflect on your understanding of the concepts addressed in the *Coach's Corner* exercises in the table provided.

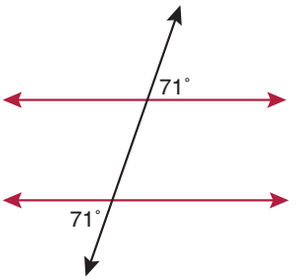
Unit 4: Geometry Lesson 4.1

The diagrams in this unit are not necessarily drawn to scale. You are expected to determine unknown angles and lengths by using your knowledge of properties and relationships, not by measuring them directly.

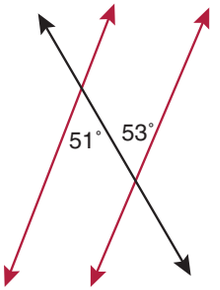
Coach's Corner – I

1. Are the highlighted lines in the following diagrams parallel? Explain how you know.

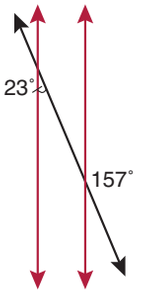
a.



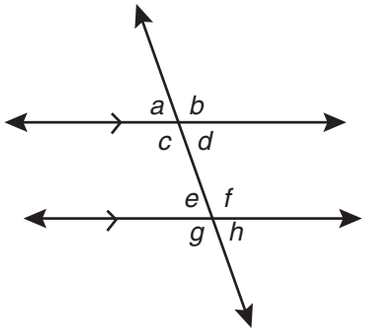
b.



c.

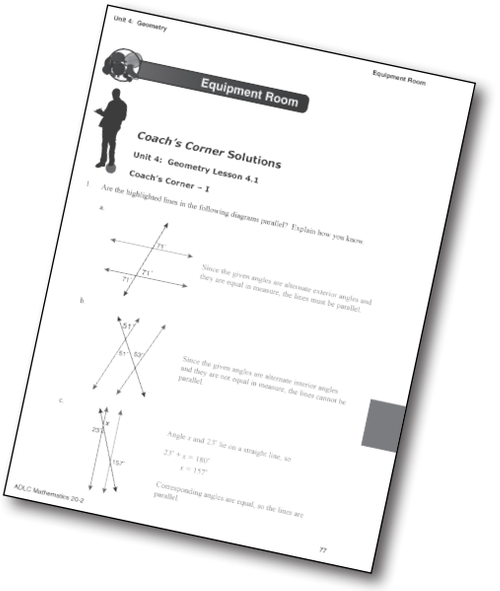


2. Prove that alternate interior angles *c* and *f* are equal.



Please go to the *Equipment Room* to check your solutions before returning to *Lesson 4.1*.

After you have assessed your work, reflect upon your understanding of the concepts addressed in the *Coach's Corner* exercises in the table provided.


Unit 4: Geometry

Equipment Room

Equipment Room

Coach's Corner Solutions

Unit 4: Geometry Lesson 4.1

Coach's Corner – 1

1. Are the highlighted lines in the following diagrams parallel? Explain how you know.

a.

75°

71°

71°

Since the given angles are alternate exterior angles and they are equal in measure, the lines must be parallel.

b.

51°

51°

52°

Since the given angles are alternate interior angles and they are not equal in measure, the lines cannot be parallel.

c.

x

23°

157°

Angle x and 23° lie on a straight line, so

23° + x = 180°

x = 157°

Corresponding angles are equal, so the lines are parallel.

ADLC Mathematics 20-2

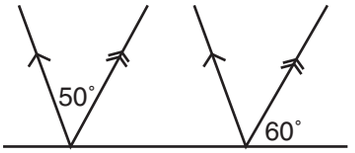
77

Question Number	Got it!	Almost there…	Need to retry or ask for help.
1			
2			

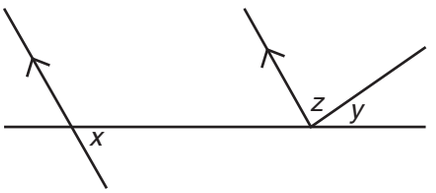
Unit 4: Geometry Lesson 4.1

Coach's Corner – II

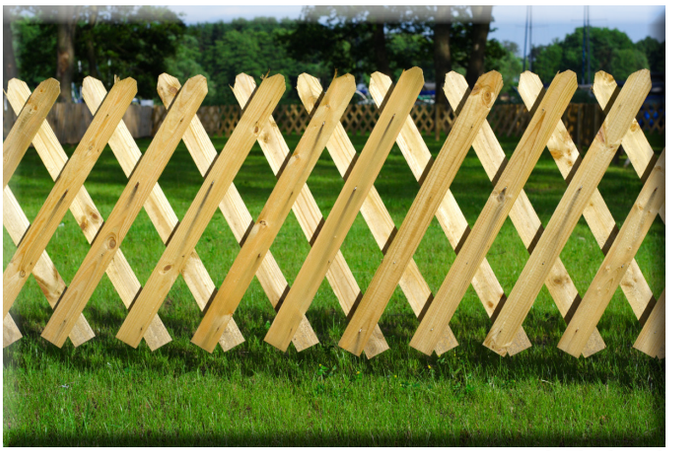
1. Determine the unknown angles in the diagram.



2. Write an expression to represent the measure of angle z in terms of x and y.



3. The fence design in the picture would look a bit funny if the slats were not parallel to each other. Describe a method of ensuring parallel slats that could be used when building a fence like this.



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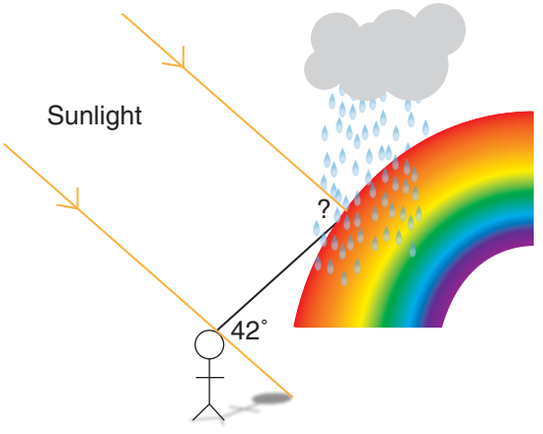
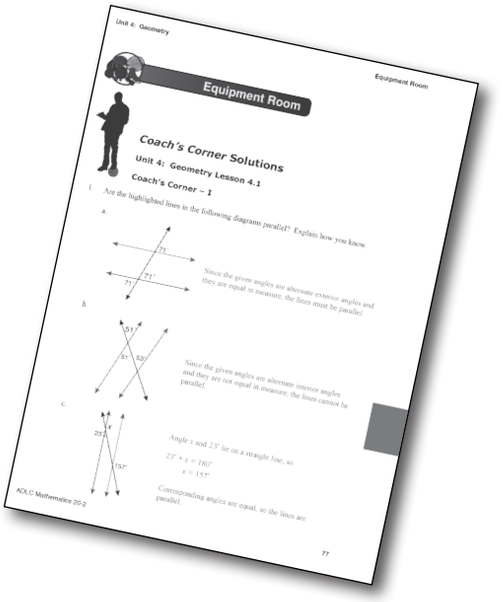
4. A rainbow is formed when sunlight is reflected off raindrops at a particular angle. Suppose the angle between your line of sight to the rainbow and your line of sight to the top of your shadow is 42°. What can you conclude about the angle made between the sunlight, the rainbow, and your line of sight to the rainbow? Explain your reasoning.



Please go to the *Equipment Room* to check your solutions before proceeding to *Game On!*, on the next page of this *Workbook*.

After you have assessed your work, reflect upon your understanding of the concepts addressed in the *Coach's Corner* exercises in the table provided.


Unit 4: Geometry

Equipment Room

Equipment Room

Coach's Corner Solutions

Unit 4: Geometry Lesson 4.1

Coach's Corner ~ 1

1. Are the highlighted lines in the following diagrams parallel? Explain how you know.

a.

71°

71°

71°

Since the given angles are alternate exterior angles and they are equal in measure, the lines must be parallel.

b.

51°

51°

53°

Since the given angles are alternate interior angles and they are not equal in measure, the lines cannot be parallel.

c.

x

23°

157°

Angle x and 23° lie on a straight line, so

$23° + x = 180°$

$x = 157°$

Corresponding angles are equal, so the lines are parallel.

ADLC Mathematics 20-2

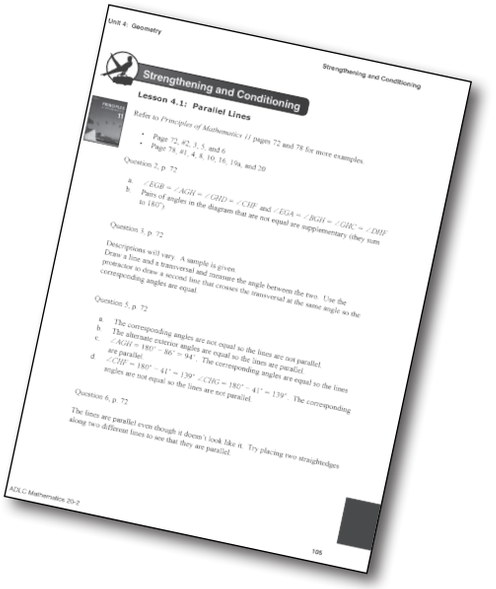
77

Question Number	Got it!	Almost there…	Need to retry or ask for help.
1			
2			
3			
4			

Note: Before you complete *Game On!*, you may review your skills and get more practice by completing the following problems in *Principles of Mathematics 11*.

- Page 72, #2, 3, 5, and 6
- Page 78, #1, 4, 6, 8, 10, 16, 19a, and 20

Check your work in *Strengthening and Conditioning*.


Unit 4: Geometry

Strengthening and Conditioning

Strengthening and Conditioning

Lesson 4.1: Parallel Lines

Refer to *Principles of Mathematics 11* pages 72 and 78 for more examples.

- Page 72, #2, 3, 5, and 6
- Page 78, #1, 4, 6, 8, 10, 16, 19a, and 20

Question 2, p. 72

a. $\angle EGB = \angle AGH = \angle GHD = \angle CHF$ and $\angle EGA = \angle BGH = \angle GHC = \angle DHF$

b. Pairs of angles in the diagram that are not equal are supplementary (they sum to 180°).

Question 3, p. 72

Descriptions will vary. A sample is given.

Draw a line and a transversal and measure the angle between the two. Use the protractor to draw a second line that crosses the transversal at the same angle so the corresponding angles are equal.

Question 5, p. 72

a. The corresponding angles are not equal so the lines are not parallel.

b. The alternate exterior angles are equal so the lines are parallel.

c. $\angle AGH = 180° - 86° = 94°$. The corresponding angles are equal so the lines are parallel.

d. $\angle CHF = 180° - 41° = 139°$. $\angle CHG = 180° - 41° = 139°$. The corresponding angles are not equal so the lines are not parallel.

Question 6, p. 72

The lines are parallel even though it doesn't look like it. Try placing two straightedges along two different lines to see that they are parallel.

ADLC Mathematics 20-2

105