

Daily Lesson Plans
for
Jacobs Geometry
Third Edition

My Father's World[®]

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Published by:
My Father's World®
P.O. Box 2140, Rolla, MO 65402
(573) 202-2000 info@mfwbooks.com
www.mfwbooks.com
February 2012

***Jacobs Geometry* Third Edition**

Lesson Plans

We include a full year of geometry in our math sequence between Algebra 1 and Algebra 2 to encourage logical thinking and to introduce deeper mathematical thought. Many different geometry programs are available; My Father's World has evaluated the options and chosen *Jacobs Geometry* for a number of reasons. *Jacobs Geometry* introduces and develops the importance of mathematical proofs and leads students through setting up and working proofs. This encourages inductive and deductive logical thinking. *Jacobs Geometry* also covers topics often overlooked by others, such as showing that there is more than one way to measure an angle, that there is more than one kind of protractor, that there are reflexive angles, and including an introduction to Non-Euclidean Geometries.

Materials needed:

- paper
- graph paper (the book uses $\frac{1}{4}$ -inch graph paper, i.e. 4 lines per inch)
- pencils
- protractor
- colored pencils (a few, used occasionally)
- compass (One with a wheel in the center to adjust the legs is much easier to use than other kinds of compasses.)
- a scientific calculator (to find sine, cosine, etc.)
- a 12-inch ruler (with both inches and centimeters; also to be used as the "straight edge" the book will mention to draw straight line segments)
- a thin one-theme spiral notebook for notes (see note on Day 2)
- Geometry: Seeing, Doing, Understanding* by Harold Jacobs (textbook, Teacher's Guide, and Test Bank)

This guide is designed for the average to above average student. The assignments in each lesson have been selected to help the student practice the concepts and apply them to various applications.

If a student is struggling with the assignments and scoring less than 80% on the tests, then he should slow down and do each problem in each lesson. This will take more time for each lesson but it will improve comprehension.

Test Scores
Jacobs Geometry, Third Edition

Name _____

Test	Date	Score	Parent Initial
Chapter 1	_____	_____	_____
Chapter 2	_____	_____	_____
Chapter 3	_____	_____	_____
Chapter 4	_____	_____	_____
Chapter 5	_____	_____	_____
Chapter 6	_____	_____	_____
Chapter 7	_____	_____	_____
Chapter 8	_____	_____	_____
Chapter 9	_____	_____	_____
Chapter 10	_____	_____	_____
Chapter 11	_____	_____	_____
Chapter 12	_____	_____	_____
Chapter 13	_____	_____	_____
Chapter 14	_____	_____	_____
Chapter 15	_____	_____	_____

Week 5

Chapter 3

- ___ Day 19 **Read** Lesson 1 (pp77 – 79).
 Do Exercises (pp80 – 83) #1 – 31 and Set III.
- ___ Day 20 **Read** Lesson 2 (pp84 – 86).
 Do Exercises (pp86 – 90) #1 – 31, 42 – 45, and 48.
- ___ Day 21 **Read** Lesson 3 (pp91 – 93).
 Do Exercises (pp93 – 97) #1 – 54.
- ___ Day 22 **Read** Lesson 4 (pp98 – 100).
 Do Exercises (pp100 – 104) #1 – 40 and Set III.

Week 6

- ___ Day 23 **Read** Lesson 5 (pp105 – 106).
 Do Exercises (pp107 – 108) #1 – 39.
- ___ Day 24 **Read** Lesson 6 (pp110 – 112).
 Do Exercises (pp112 – 115) #1 – 48.
- ___ Day 25 **Read** Lesson 7 (pp117 – 118).
 Do Exercises (pp119 – 121) #1 – 44.
- ___ Day 26 **Read and do** Chapter 3 Summary and Review (pp123 – 126) #1 – 36.

Week 7

- ___ Day 27 **Do** the rest of Chapter 3 Summary and Review (pp126 – 128) #37 – 57.
- ___ Day 28 **Do** the Chapter 3 Test.
- ___ Day 29 **Read** the Algebra Review (pp129 – 130).
 Do Exercises (p130) #1 – 24.

Chapter 4

- ___ Day 30 **Read** Lesson 1 (pp131 – 134).
 Do Exercises (pp134 – 137) #1 – 34.
- ___ Day 31 **Read** Lesson 2 (pp139 – 141).
 Do Exercises (pp141 – 145) #1 – 55 odds and Set III.

Week 8

- ___ Day 32 **Read** Lesson 3 (pp146 – 147).
 Do Exercises (pp148 – 149) #1 – 32.

Chapter 8

___Day 70 **Read** Lesson 1 (pp297 – 300).
Note: These transformations are *sometimes* referred to by nicknames:

A **translation** is called a *slide*,

A **reflection** is called a *flip*,

A **rotation** is called a *spin*.

You might have seen these nicknames in other books. You should know both set of names since either name could show up on an entrance exam or achievement test.

Do Exercises (pp300 – 304) #1 – 17, 50 – 58.

___Day 71 **Read** Lesson 2 (pp305 – 307).
Do Exercises (pp308 – 311) #6 – 20, 26 – 34, and Set III.

Week 17

___Day 72 **Read** Lesson 3 (pp312 – 313).
Do Exercises (pp314 – 318) #1 – 12, 26 – 40, and Set III.

___Day 73 **Read** Lesson 4 (pp319 – 320).
Do Exercises (pp321 – 324) #1 – 18, 32 – 37, 45 – 51, and Set III.

___Day 74 **Read** and **do** Chapter 8 Summary and Review (pp325 – 327) #1 – 27.

___Day 75 **Do** the rest of Chapter 8 Summary and Review (pp327 – 329) #28 – 50.

___Day 76 **Do** the Chapter 8 Test.

Semester Two

Week 18

Chapter 9

___Day 77 **Read** Lesson 1 (pp337 – 339).
Do Exercises (pp340 – 343) #1 – 12, 25 – 39, and Set III.

___Day 78 **Read** Lesson 2 (pp344 – 345).
Note: In problems 30 through 35, the book talks about land surveying with a chain. Modern surveying uses different tools, but knowing the old methods, including the chain, has practical uses today. Some places still use the chain method, and many old deeds that used the chain method still are active. A land owner in Missouri, let's call him "Jim," owned a piece of land that had been in his family for generations. The deed that indicated where the boundaries were had been done with a surveyor's chain. There arose a dispute as to where the property line actually was between Jim's property and another's. The other property owner, let's call him "Bob," said that the fence along that property line was twenty feet too far onto his side and needed to be moved back