

Unit 1 Test Study Guide (Geometry Basics)

Name: _____

Date: Jan 11, 2022

Per: 1

Topic 1: Points, Lines & Planes

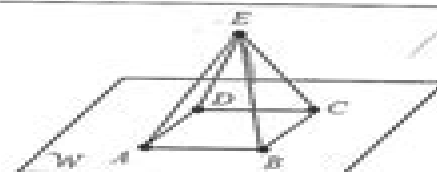
Use the diagram to the right to answer questions 1-4.

1. Name two points collinear to point K . J, L
2. Give another name for line b . HK
3. Name the intersection of line c and plane R . K
4. Name a point non-coplanar to plane R . N, M



Use the diagram to the right to answer questions 5-8.

5. How many planes are shown in the figure? 5
6. Give another name for plane W . plane DCB
7. Name the intersection of plane ADE and plane W . AD
8. Name a point non-collinear to points A and B . C



Topic 2: Segment Addition Postulate

9. If $DF = 42$, find DE .

$$\begin{array}{c} \text{D} \quad \text{E} \quad \text{F} \\ \text{---} 7x+1 \text{---} \text{---} 4x-3 \text{---} \end{array}$$

$$7x+1+4x-3=42$$

$$11x - 2 = 42$$

$$11x = 44 \quad x = 4$$

$$DE = 7(4)+1 = 29$$

10. In the diagram below, if $JL = 10x - 2$, $JK = 5x - 8$, and $KL = 7x - 12$, find KL .

$$\begin{array}{c} \text{J} \quad \text{K} \quad \text{L} \\ \text{---} \text{---} \text{---} \end{array}$$

$$10x - 2 = 5x - 8 + 7x - 12$$

$$10x - 2 = 12x - 20$$

$$18 = 2x$$

$$x = 9$$

$$KL = 7(9) - 12 = 51$$

11. If S is the midpoint of RT , $RS = 5x + 17$, and $ST = 8x - 31$, find RS .

$$5x + 17 = 8x - 31$$

$$48 = 3x$$

$$x = 16$$

$$RS = 5(16) + 17 = 97$$

12. If line y bisects $\overline{AC}$, $AB = 4 - 5x$, and $BC = 2x + 25$, find AC .

$$\begin{array}{c} \text{C} \\ | \\ \text{B} \\ | \\ \text{A} \end{array}$$

$$4 - 5x = 2x + 25$$

$$4 = 7x + 25$$

$$-21 = 7x$$

$$x = -3$$

$$AB = 4 - 5(-3) = 19$$

$$AC = 2(19) = 38$$

13. If B is the midpoint of $\overline{AC}$, $AC = CD$, $AB = 3x + 4$, $AC = 11x - 17$, and $CE = 49$, find DE .



$$2(3x+4) = 11x-17$$

$$6x+8 = 11x-17$$

$$25 = 5x$$

$$x = 5$$

$$AC = 11(5) - 17 = 38$$

$$DE = 49 - 38 = 11$$

Answer To Geometry Study Guide

Kaplan Test Prep



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- Chapter 3: Answer To Geometry Study Guide in Everyday Life
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- Chapter 5: Conclusion

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Table of Contents Answer To Geometry Study Guide

1. Understanding the eBook Answer To Geometry Study Guide
 - The Rise of Digital Reading Answer To Geometry Study Guide
 - Advantages of eBooks Over Traditional Books
2. Identifying Answer To Geometry Study Guide
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Answer To Geometry Study Guide
 - User-Friendly Interface
4. Exploring eBook Recommendations from Answer To Geometry Study Guide
 - Personalized Recommendations
 - Answer To Geometry Study Guide User Reviews and Ratings
 - Answer To Geometry Study Guide and Bestseller Lists
5. Accessing Answer To Geometry Study Guide Free and Paid eBooks
 - Answer To Geometry Study Guide Public Domain eBooks
 - Answer To Geometry Study Guide eBook Subscription Services
 - Answer To Geometry Study Guide Budget-Friendly Options
6. Navigating Answer To Geometry Study Guide eBook Formats
 - ePub, PDF, MOBI, and More
 - Answer To Geometry Study Guide Compatibility with Devices
 - Answer To Geometry Study Guide Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Answer To Geometry Study Guide
 - Highlighting and Note-Taking Answer To Geometry Study Guide
 - Interactive Elements Answer To Geometry Study Guide
8. Staying Engaged with Answer To Geometry Study Guide

- Joining Online Reading Communities
- Participating in Virtual Book Clubs
- Following Authors and Publishers Answer To Geometry Study Guide
- 9. Balancing eBooks and Physical Books Answer To Geometry Study Guide
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Answer To Geometry Study Guide
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Answer To Geometry Study Guide
 - Setting Reading Goals Answer To Geometry Study Guide
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Answer To Geometry Study Guide
 - Fact-Checking eBook Content of Answer To Geometry Study Guide
 - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
- 14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

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