



Geometry Journey Video Series

Program #2

Points, Lines, and Rays

**Satellite Broadcasting
VHS
and Internet/Intranet Streaming**



Topic

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Program Description

This video is a visual tour of the building blocks of geometry: points and lines. It helps students realize that mathematically these terms are very hard to define, although we all have a general understanding of what they are. The goal is to help students develop a mathematical understanding of these concepts.

This program is the #2 episode in the fifteen 15-minute Geometry Journey Series.

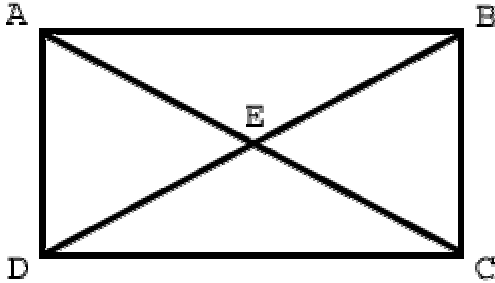
Synopsis

This program will cover the following topics:

1. Points
2. Straight Lines
3. Line Segments
4. Midpoint of a Segment and Bisector
5. Rays
6. Types of Lines
 - a) Intersecting Lines
 - b) Perpendicular Lines
 - c) Parallel Lines
 - d) Transversals
 - e) Parallel Lines Cut by Transversals

1) How many line segments are there in the diagram?

- (A) 4 (B) 6
(C) 8 (D) 10

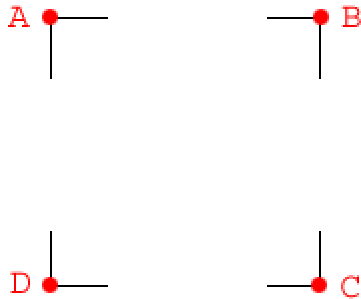


2) Point B is the midpoint of AC and point C is the midpoint of BD. Please complete the following sentence: The length of AD is _____ times that of AB.

- (A) 2 (B) 3
(C) 4 (D) 5



3) Points A, B, C and D form a square. How many pairs of perpendicular lines can you identify in this picture? Each line needs to go through two of the four points.



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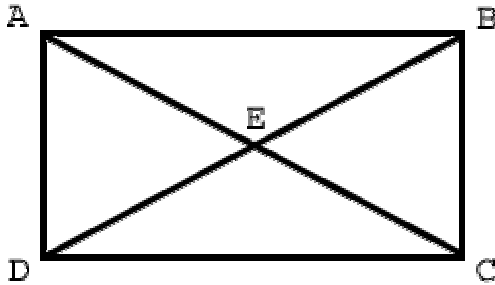
Discussion Questions

- 1) Why do we normally set the end posts first when setting fence posts?



1) How many line segments are there in the diagram?

- (A) 4
- (B) 6
- (C) 8
- (D) 10



Answer: (D). They are AB, BC, CD, DE, AE, EC, AC, DE, EB, and DB.

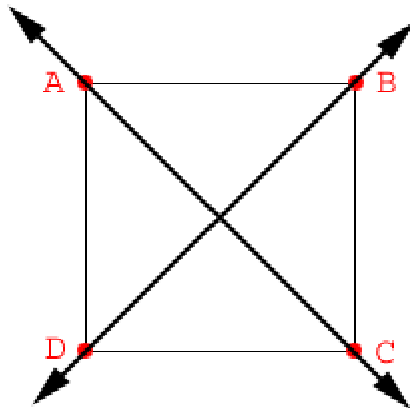
2) Point B is the midpoint of AC and point C is the midpoint of BD. Please complete the following sentence: The length of AD is _____ times that of AB.



Answer: (B). The length of AD is 3 times that of AB.

3) Points A, B, C and D form a square. How many pairs of perpendicular lines can you identify in this picture? Each line needs to go through two of the four points.

Answer: At least 5 pairs. They are AB and AD, AB and BC, AD and DC, BC and DC, as well as AC and BD.



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Hints to Discussion Questions

1) Why do we normally set the end posts first when setting fence posts?

Answer: Two points determine a line. By setting the two end posts, we can easily determine the correct positions of the other posts in between.

- End -