

Questions on Disclosure?

You will be having your first content mastery quiz on your disclosure, so get it out and review!

****Grab a SM2 Volume 1 book, and tear out ALL of chapter 1 (pages 1-116); they will tear out pretty easily if you grab all the pages at once.**

Content Mastery
Quiz: Disclosure

What are some things effective groups do to solve a problem?

Work on a task?

- focus
- communicate throughout task
- help each other answer the questions
- teamwork
- don't leave anyone behind
- take notes
- involve everyone
- be respectful
- don't be shy
- get to know group mates

Staircase Towers

SM2

Below is a staircase tower that is made by starting with 3 cubes and adding two cubes to get each successive tower.

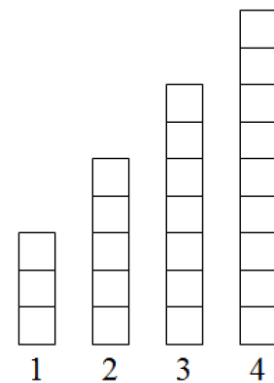
How many cubes will be in the 10th tower?

21 cubes

How many cubes will be in the nth tower?

any # tower

How do you know?



*Make a poster of your groups answers and thinking. Link the diagram to your rule or formula to determine the number of cubes in the nth tower. Be ready to explain your group's thinking to the class!

PG 3

1.1

Let's Get This Started!

Points, Lines, Planes, Rays, and Line Segments



PG. 4

There are three essential building blocks of geometry—the point, the line, and the plane. These three terms are called undefined terms; we can only describe and create mathematical models to represent them.

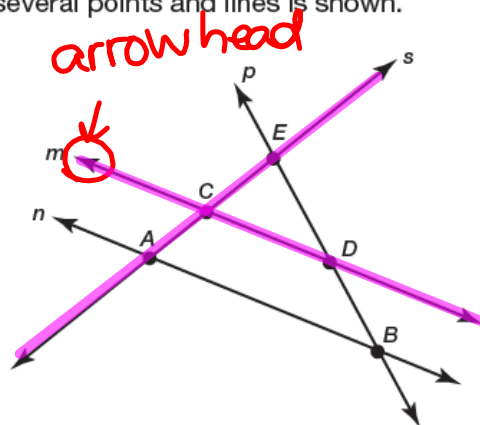
A **point** is described simply as a location. A point in geometry has no size or shape, but it is often represented using a dot. In a diagram, a point can be labeled using a capital letter.



A **line** is described as a straight, continuous arrangement of an infinite number of points.

A line has an infinite length, but no width. Arrowheads are used to indicate that a line extends infinitely in opposite directions. In a diagram, a line can be labeled with a lowercase letter positioned next to the arrowhead.

A mathematical model of several points and lines is shown.



- Does the name “line C” describe a unique line? Explain why or why not.

No, from the picture, it describes 2 lines.

2. Does the name "line CD " describe a unique line? Explain why or why not.

Yes, line m .

3. Does the name "line m " describe a unique line? Explain why or why not.

Yes, it describes "line CD " or \overleftrightarrow{CD}

4. How many points are needed to name a specific line?

Two points.

5. What is another name for line AB ?

line n or \overleftrightarrow{BA}

Lines have names just like people. Many people may have the same first name. Many lines may pass through the same point.

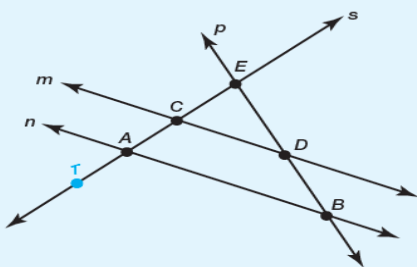


Line AB can be written using symbols as \overleftrightarrow{AB} and is read as "line AB ."

HW: pg. 5-7

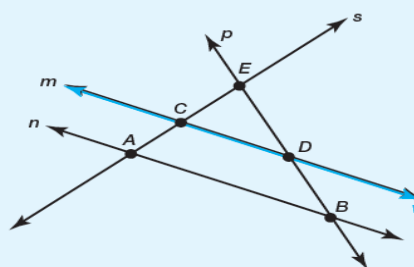
6. Analyze each model and explanation.

 Brad



I drew point T on line s. Since only one line goes through T, point T describes just one line.

 Kara



I drew line v through points C and D. So, line CD describes two lines.

Describe the inaccuracy in each students' reasoning.

7. How many lines can be drawn through a single point?

Collinear points are points that are located on the same line.

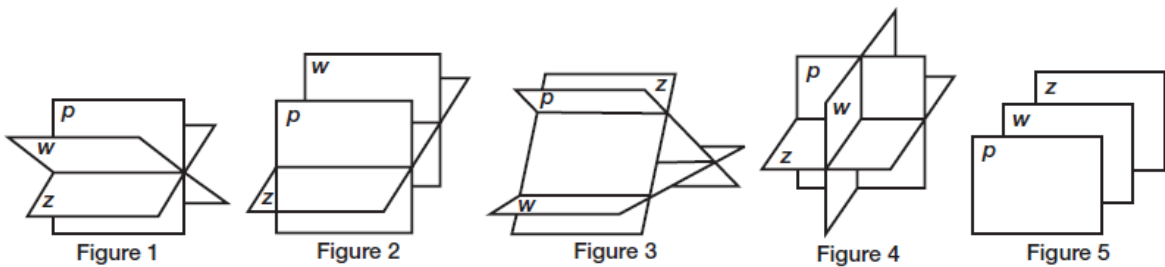
8. Use the diagram shown prior to Question 1.

- a. Name three points that are collinear. b. Name three points that are not collinear.



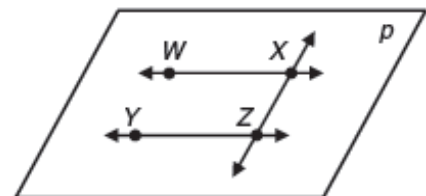
A plane is described as a flat surface. A plane has an infinite length and width, but no depth, and extends infinitely in all directions. One real-world model of a plane is the surface of a still body of water. Three non-collinear points describe a unique plane, but planes are usually named using one italic letter located near a corner of the plane as drawn.

Three planes can intersect in a variety of ways or may not intersect at all.



1. Identify each of the following in the figure shown.

- a. Name all points.
- b. Name all lines.
- c. Name all planes.



Coplanar lines are two or more lines that are located in the same plane. **Skew lines** are two or more lines that do not intersect and are not parallel. Skew lines do not lie in the same plane.

2. Identify each of the following in the figure shown.

- a. Name all collinear points.
- b. Name all coplanar lines.
- c. Name all skew lines.

