



SHELL  
EDUCATION

# Leveled Texts for Mathematics

Full-color  
Teacher  
Resource CD



## Geometry


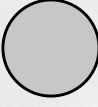
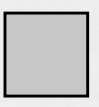



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# How to Use This Product

## Readability Chart

Title of the Text	 Star	 Circle	 Square	 Triangle
Angles All Around	2.2	3.2	5.0	6.6
Understanding Triangles	1.5	3.5	5.5	6.7
To Cross or Not to Cross	2.1	3.3	5.4	6.8
Quadrilaterals	2.1	3.0	5.1	6.5
Classifying 2-D Shapes	2.2	3.5	5.0	6.6
Irregular Shapes	1.8	3.5	5.5	6.8
Congruent and Similar Figures	2.2	3.4	5.0	6.5
Understanding 3-D Shapes	2.2	3.5	5.0	6.7
Understanding Prisms	2.0	3.1	5.0	6.6
The Coordinate Plane	1.8	3.4	5.4	6.7
Circles	2.0	3.0	5.1	6.5
Symmetry	1.9	3.1	5.1	6.7
Reflections	2.2	3.4	5.4	6.5
Rotations	2.2	3.0	5.5	7.0
Translations	2.2	3.5	5.4	6.8

## Components of the Product

### Primary Sources

- Each level of text includes multiple primary sources. These documents, photographs, and illustrations add interest to the texts. The mathematic images also serve as visual support for second language learners. They make the texts more context-rich and bring the examples to life.

# To Cross or Not to Cross

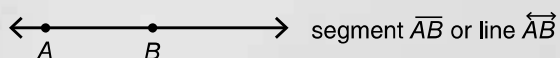
Look at the train tracks. It may look like the tracks will meet. But the two steel rods will never intersect!



## Basic Facts

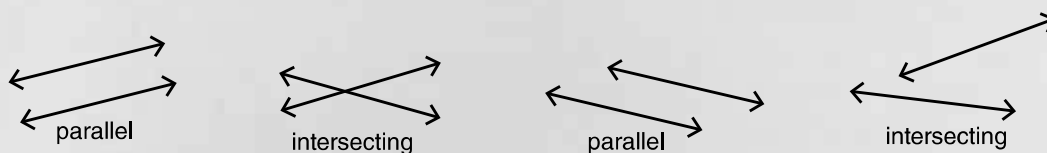
### Lines

**Lines** are endlessly straight. They go on and on. We draw arrows at each end of a line. This shows that it continues forever.

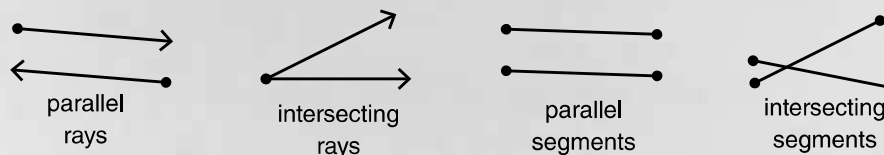


### Parallel or Intersecting

There are many kinds of lines. One type of line is called **parallel**. Parallel lines will never cross. They will always be the same distance apart. When lines cross they **intersect** at one point.

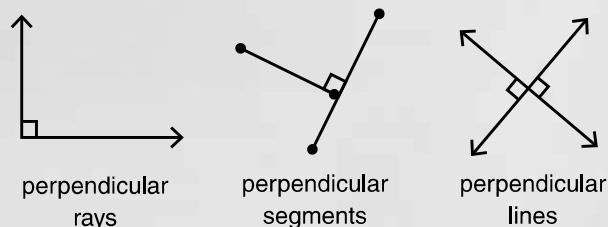


A **ray** is a line with a starting point at one side. But it has no ending point. A **segment** is a line with two endpoints. Rays and segments can be parallel. They can also intersect.



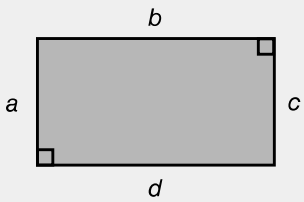
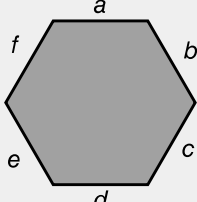
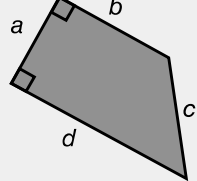
### Perpendicular

Lines, rays, and segments can intersect. When they do, angles are formed. You know that a right angle has a measure of  $90^\circ$ . When right angles are formed, the lines, rays, or segments that formed those angles are called **perpendicular**.



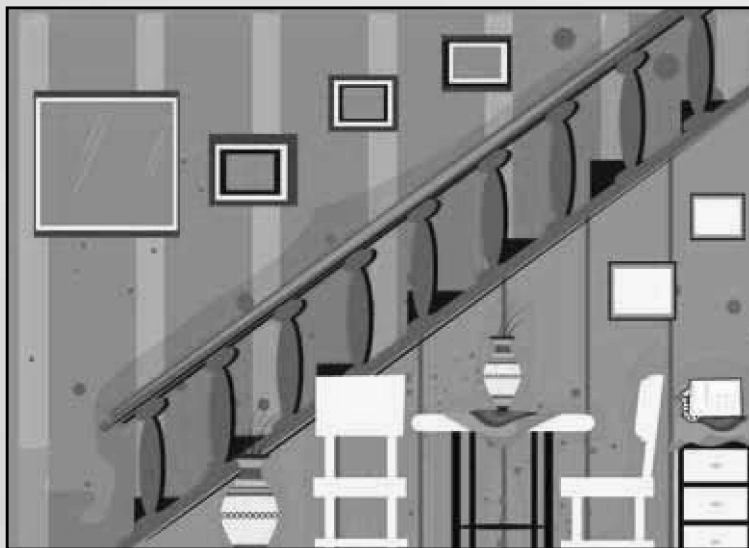
# Working with Parallel and Perpendicular Lines

Let's find all the pairs of parallel and perpendicular sides in the examples below.

		
<p><b>Parallel</b>  <i>a</i> and <i>c</i>  <i>b</i> and <i>d</i></p> <p><b>Perpendicular</b>  <i>a</i> and <i>d</i>    <i>d</i> and <i>c</i>  <i>c</i> and <i>b</i>    <i>a</i> and <i>b</i></p>	<p><b>Parallel</b>  <i>a</i> and <i>d</i>  <i>b</i> and <i>e</i>  <i>c</i> and <i>f</i></p> <p><b>Perpendicular</b>                      none</p>	<p><b>Parallel</b>  <i>b</i> and <i>d</i></p> <p><b>Perpendicular</b>  <i>a</i> and <i>d</i>  <i>a</i> and <i>b</i></p>

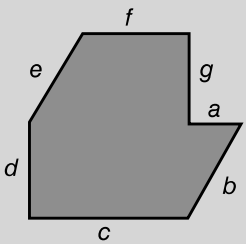
## Parallel and Perpendicular Lines in Our Daily Lives

Look at the room shown. There are many examples of both types of lines. The pictures, table, chair, and drawers are only a few. If the handrail was not parallel with the base of the posts, it could cause problems. If the stair steps were not parallel with each other and with the ground, then anyone using the steps would likely fall!



### You Try It

Find each pair of parallel and perpendicular sides in the figure below.

<p><b>Parallel</b>  <i>f</i> and ___  <i>f</i> and ___  <i>a</i> and ___  <i>e</i> and ___  <i>d</i> and ___</p>		<p><b>Perpendicular</b>  <i>d</i> and ___  <i>g</i> and ___  <i>g</i> and ___</p>
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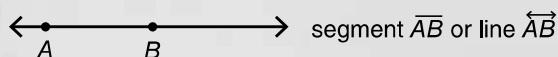
# To Cross or Not to Cross

Look at the train tracks. Even though it may look like it, the two steel rods will never intersect!

## Basic Facts

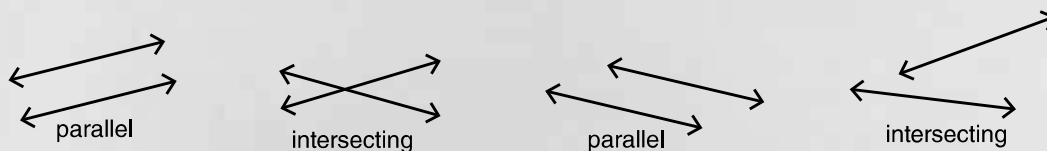
### Lines

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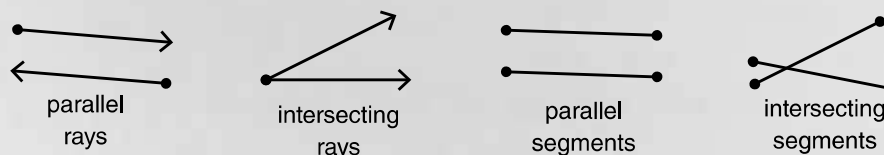


### Parallel or Intersecting

There are many kinds of lines. One type of line is called **parallel**. Parallel lines will never cross. They will always be the same distance apart. If lines were to cross they would **intersect** at one point. When lines cross each other we say that they intersect.

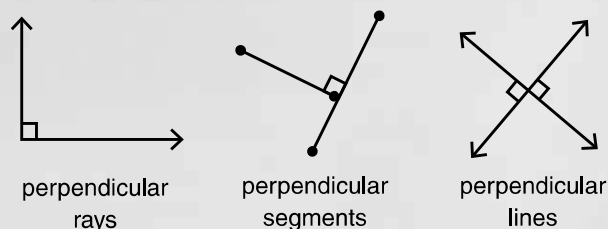


A **ray** is a line that has a starting point. But it has no ending point. A **segment** is a line with two endpoints. Rays and segments can be parallel. They can also intersect.



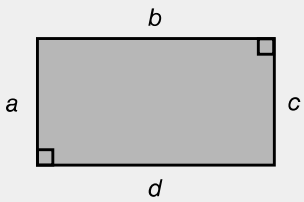
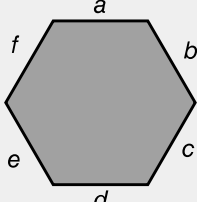
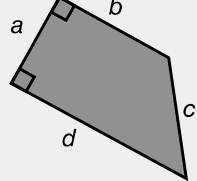
### Perpendicular

Lines, rays, and segments can intersect. When they do, angles are formed. You know that a right angle has a measure of  $90^\circ$ . When right angles are formed, the lines, rays, or segments that formed those angles are called **perpendicular**.



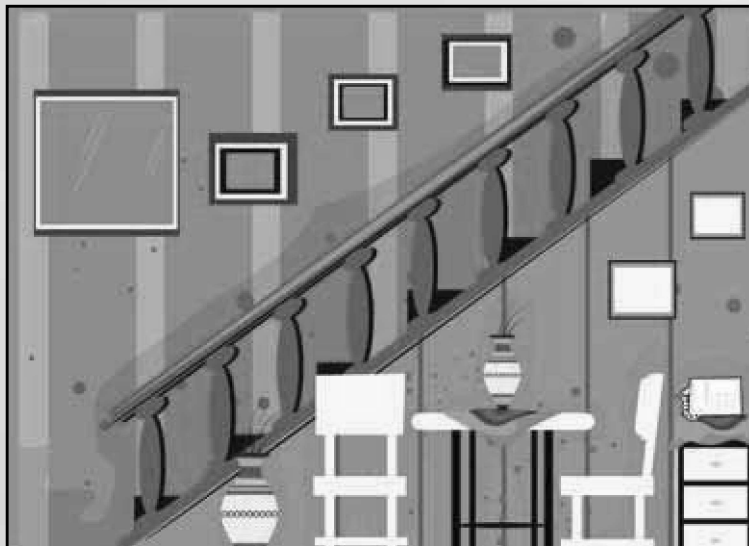
# Working with Parallel and Perpendicular Lines

Let's find all the pairs of parallel and perpendicular sides in the examples below.

 <p><b>Parallel</b>  <i>a</i> and <i>c</i>  <i>b</i> and <i>d</i></p> <p><b>Perpendicular</b>  <i>a</i> and <i>d</i>    <i>d</i> and <i>c</i>  <i>c</i> and <i>b</i>    <i>a</i> and <i>b</i></p>	 <p><b>Parallel</b>  <i>a</i> and <i>d</i>  <i>b</i> and <i>e</i>  <i>c</i> and <i>f</i></p> <p><b>Perpendicular</b>            none</p>	 <p><b>Parallel</b>  <i>b</i> and <i>d</i></p> <p><b>Perpendicular</b>  <i>a</i> and <i>d</i>  <i>a</i> and <i>b</i></p>
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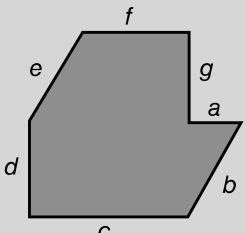
## Parallel and Perpendicular Lines in Our Daily Lives

Look at the room shown. There are many examples of both types of lines. The pictures, table, chair, and drawers are only a few. If the handrail was not parallel with the base of the posts, it could cause problems. If the stair steps were not parallel with each other and with the ground, then anyone using the steps would likely fall!



### You Try It

Find each pair of parallel and perpendicular sides in the figure below.

<p><b>Parallel</b>  <i>f</i> and ___  <i>f</i> and ___  <i>a</i> and ___  <i>e</i> and ___  <i>d</i> and ___</p>		<p><b>Perpendicular</b>  <i>d</i> and ___  <i>g</i> and ___  <i>g</i> and ___</p>
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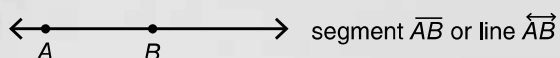
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Look at the train tracks. Even though it may look like it, the two steel rods will never intersect!

## Basic Facts

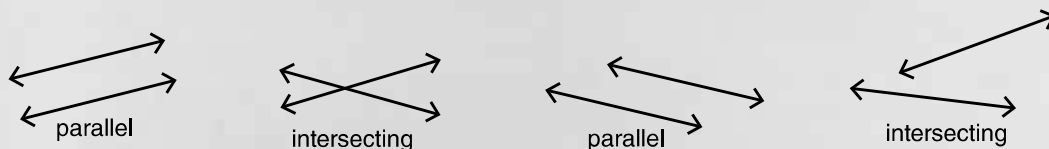
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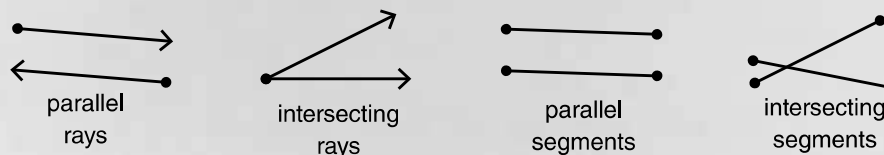


### Parallel or Intersecting

There are many different kinds of lines. One type of line is called **parallel**. Parallel lines will never cross and will always be the same distance apart. If lines were to cross, they would **intersect** at one point. Whenever lines cross one another we say that they are intersecting lines.

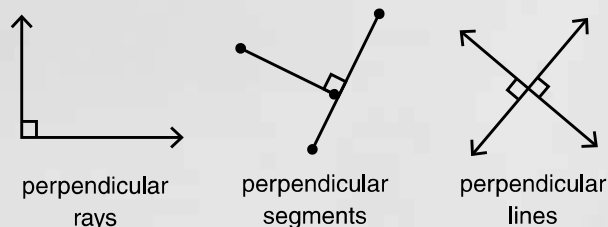


A **ray** is a line that has a starting point, but no ending point, and a **segment** is a line with two endpoints. Rays and segments can be parallel or they can intersect.



### Perpendicular


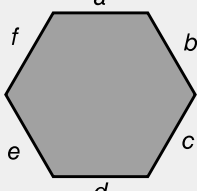
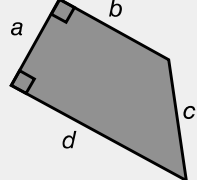
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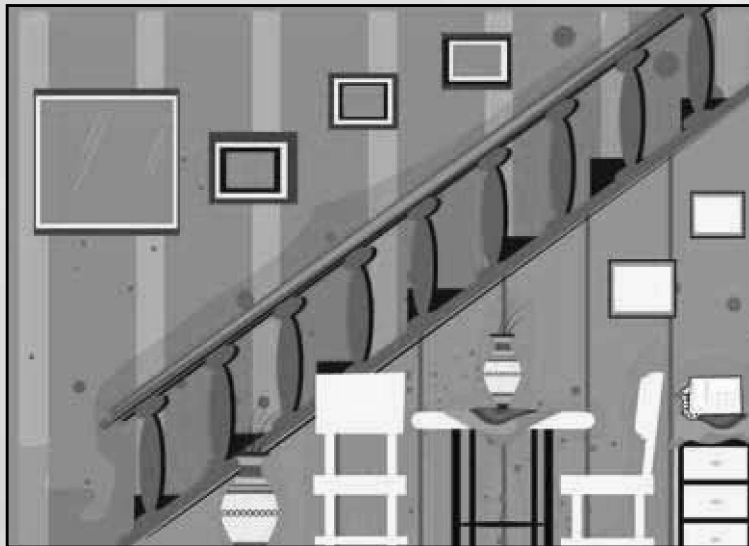
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Let's find all the pairs of parallel and perpendicular sides in the examples below.

		
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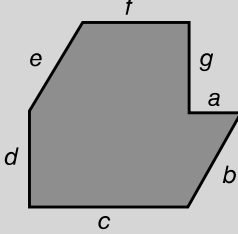
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Look at the room shown here. There are many examples of both types of lines. The pictures, table, chair, and drawers are only a few. If the handrail was not parallel with the base of the posts, it could cause problems, and if the stair steps were not parallel with each other and with the ground, then anyone using the steps would surely be at risk of falling!



## You Try It

Find each pair of parallel and perpendicular sides in the figure below.

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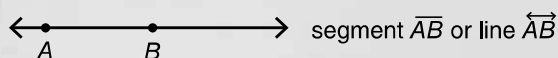
# To Cross or Not to Cross

Even though it may look like it, the two steel rods of these train tracks will never intersect!

## Basic Facts

### Lines

**Lines** are endlessly straight and endlessly long. We draw arrows at each end of a line to show that it continues indefinitely.

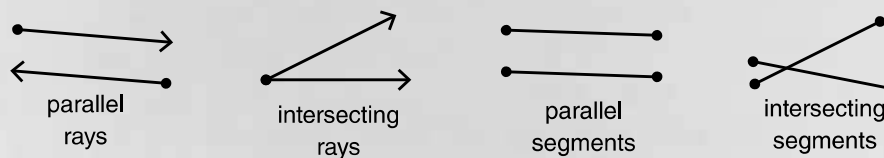


### Parallel or Intersecting

There are various types of lines, including **parallel** and **intersecting** lines. Parallel lines will never cross and will always be the same distance apart. Whenever lines cross one another we call them intersecting lines.

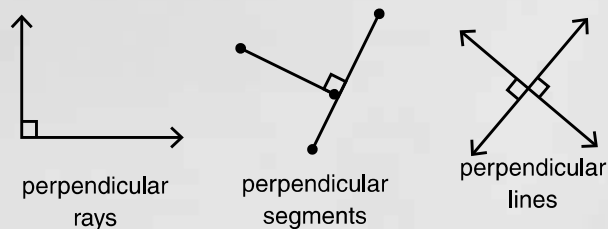


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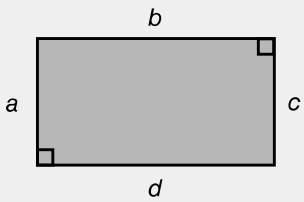
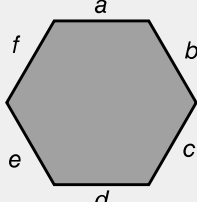
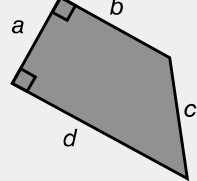
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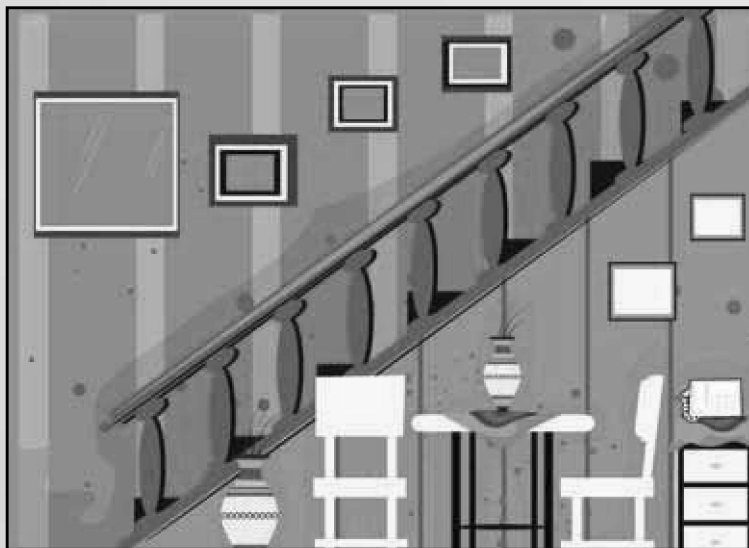
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Let's find all the pairs of parallel and perpendicular sides in the examples below.

		
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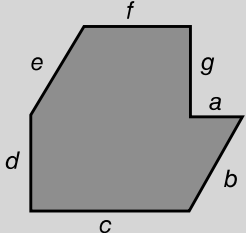
## Parallel and Perpendicular Lines in Our Daily Lives

Study the room pictured here, and you can find many examples of both types of lines. The pictures, table, chair, and drawers are only a few. If the handrail was not parallel with the base of the posts, it could cause problems, and if the stair steps were not parallel with each other and with the ground, then anyone using the steps would surely be at risk of falling!



## You Try It

Find each pair of parallel and perpendicular sides in the figure below.

<p><b>Parallel</b>  <i>f</i> and ___  <i>f</i> and ___  <i>a</i> and ___  <i>e</i> and ___  <i>d</i> and ___</p>		<p><b>Perpendicular</b>  <i>d</i> and ___  <i>g</i> and ___  <i>g</i> and ___</p>
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