## Week 28: 3/7-3/11 Math I Due: 3/21

## Objectives:

1. To determine whether two lines are parallel.
2. To relate parallel and perpendicular lines.
3. To use parallel lines to prove a theorem about triangles.
4. To find measures of angles of triangles.

### Monday:

In Class:
No Class
Homework:
None

### Tuesday:

In Class:
Sections 11-3: #1-6 and 11-4: #1-5
Homework:
Section 11-3: #7-24
Section 11-4 Handout attached

### Wednesday:

Homework:
Go to text website: www.pearsonsuccessnet.com
Click on section 11-5 and WATCH online problems 1-3 and complete "Got It's" that follow.
THESE WILL BE CHECKED THURSDAY FOR COMPLETION OR POINTS WILL BE DEDUCTED.

### Thursday:

In Class:
Section 11-5: #1-6
Review contents from Chapter 11 to prepare for Friday's Quiz.
Homework:
Section 11-5: #7-12, 14-18, 22-25

### Friday:

Homework:
Complete Chapter 11 Quiz on Google Classroom. You do not need to show work, just type in your answers. This quiz is open book/open note.
***THE QUIZ MUST BE COMPLETED BY SUNDAY, THE 13TH BY MIDNIGHT OR YOU WILL RECEIVE NO CREDIT!!!
This packet will be due the Monday we return from Spring Break!
Enjoy your week off!

Name _____ Class _____ Date _____

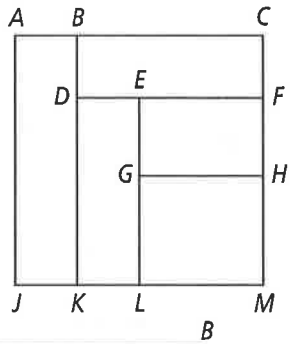
# Practice

*Form G*

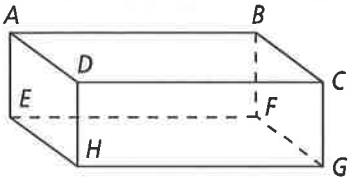
## Parallel and Perpendicular Lines

1. Suppose you are laying tiles. You place several different rectangles together to form a larger rectangle.
   a. $\overline{BC}$ is parallel to $\overline{DF}$, $\overline{DF}$ is parallel to $\overline{GH}$. What is the relationship between $\overline{BC}$ and $\overline{GH}$? Explain.

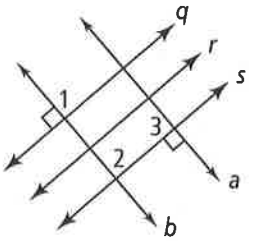
   b. $\overline{BK}$ is parallel to $\overline{EL}$. $\overline{GH}$ is perpendicular to $\overline{BK}$. What is the relationship between $\overline{GH}$ and $\overline{EL}$?




2. **Error Analysis** A student says that according to Theorem 3-9, $\overleftrightarrow{AB}$ and $\overleftrightarrow{BC}$ must be parallel because they are both perpendicular to $\overleftrightarrow{BF}$. Explain the student's error.




3. **Developing Proof** Copy and complete this paragraph proof.



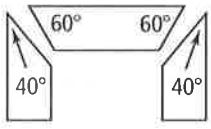

**Given:** $q \parallel r$, $r \parallel s$, $b \perp q$, and $a \perp s$

**Prove:** $a \parallel b$

**Proof:** Because it is given that $q \parallel r$ and $r \parallel s$, then $q \parallel s$ by the _____. This means that $\angle 1 \cong \angle$ _____ because they are _____. Because $b \perp q$, $m\angle 1 = 90$. So, $m\angle 2 =$ _____. This means $s \perp b$, by definition of perpendicular lines. It is given that $a \perp s$, so $a \parallel b$ by Theorem _____.

4. **Open-Ended** Draw a diagram that meets the criteria listed below. Then describe how all the lines are related to each other.
   a. $q \parallel r$
   b. $r \perp s$
   c. $t \parallel q$
   d. $u \perp t$

5. A puppeteer cuts the pieces shown at the right to frame the stage of a puppet theater. Will the sides of the pieces on the left and right be parallel?




**In Exercises 6 and 7, *a*, *b*, *c*, and *d* are distinct lines in the same plane. For each combination of relationships, tell how *a* and *c* relate. Justify your answer.**

6. $a \perp b; b \perp c$
7. $a \perp b; b \parallel c$