

Name: _____

Period: _____

Ch. 2 WS 8 - REVIEW FOR CHAPTER 2 TEST

The chapter two test will take place on _____. It will cover information from 2.5 through 2.8. To prepare, you should look at your notes, assignments, and possibly the chapter review section of your book (p. 158-162). Be able to hit the following targets:

LT 1: I can identify and use basic postulates about point, lines, and planes.

LT 2: I can identify key vocabulary related to proofs.

LT 3: I can use algebra to write two-column proofs.

LT 4: I can write two-column geometric proofs using postulates, theorems, properties, definitions, etc.

LT 1 Practice:

Determine whether each statement is *sometimes*, *always*, or *never* true. Explain your reasoning.

1. The intersection of plane M and plane N is point A .

2. If A and B lie in plane W , then $\overleftrightarrow{AB}$ lies in plane W .

3. $\overleftrightarrow{TR}$ lies in plane M .

4. Four points will lie in one plane.

5. Two obtuse angles will be supplementary.

6. Planes P and Q intersect in line m . Line m lies in both plane P and plane Q .

LT 2 practice: Study using the “Key Vocabulary” and “Vocabulary Check” on page 158

State whether each sentence is true or false. If false, replace the underlined term to make a true sentence.

7. The first part of an if-then statement is the conjecture.

8. Deductive reasoning uses the laws of mathematics to reach logical conclusions from given statements.

9. The inverse of a statement p would be written in the form *not p*.

LT 3 Practice:

7. Solve $4(x + 3) = 52$. Write a justification for each step.

Statements	Reasons
$4(x + 3) = 52$	
$4x + 12 = 52$	
$4x = 40$	
$x = 10$	

Name: _____

Period: _____

8. Complete the following proof.

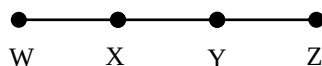
Given: $\frac{y+2}{3} = 3$ **Prove:** $y = 7$

Statements	Reasons
	Given
$y = 7$	

LT 4 Practice:**9. Complete the following:**

Given: $\overline{WY} \cong \overline{XZ}$

Prove: $\overline{WX} \cong \overline{YZ}$

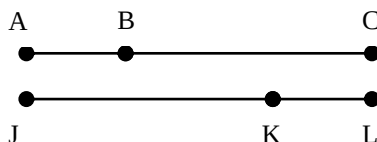
**Proof:**

Statements	Reasons
1. $\overline{WY} \cong \overline{XZ}$	1. Given
2.	2. Definition of congruence
3. $WX + XY = WY$ $YZ + XY = XZ$	3.
4.	4. Substitution Property of Equality
5.	5.
6.	6. Definition of congruence

10. Prove the following using a two-column proof.

Given: $\overline{JK} \cong \overline{BC}$ and $\overline{KL} \cong \overline{AB}$

Prove: $\overline{JL} \cong \overline{AC}$

**Proof:**

Statements	Reasons
1. $\overline{JK} \cong \overline{BC}$; $\overline{KL} \cong \overline{AB}$	1.
2. $JK = BC$; $KL = AB$	2.
3. $AB + BC = AC$; $JK + KL = JL$	3.
4. $JK + KL = AC$	4.
5. $AC = JL$	5.
6. $JL = AC$	6.
7. $\overline{JL} \cong \overline{AC}$	7.