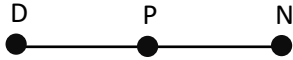


### Study Guide #3

Lessons Covered: #9 Proofs with Segments, #10 Angle Addition Postulate, #11 Constructing Angles, #12 Angle Relationships

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

1. Given that P is the midpoint of  $\overline{DN}$   
Prove that  $2DP = DN$



| Statements | Reasons |
|------------|---------|
|            |         |

2. Given that  $\overline{LV} \cong \overline{QC}$   
Prove that  $\overline{LQ} \cong \overline{VC}$



| Statements | Reasons |
|------------|---------|
|            |         |

Solve each for x

3. D is interior to  $\angle ABC$ .  $m\angle ABC = 30$ ,  
 $m\angle ABD = x + 10$ ,  $m\angle DBC = 2x - 1$ . Solve for x.

4. H is interior to  $\angle EFG$ .  $m\angle EFH = 7x - 3$ ,  
 $m\angle HFG = 4x - 4$ ,  $m\angle EFG = 9x + 3$ . Solve for x.

5. M is interior to  $\angle JKL$ .  $m\angle JKL = 6x - 16$ ,  
 $m\angle JKM = 3x + 8$ ,  $m\angle MKL = x - 2$ . Solve for x

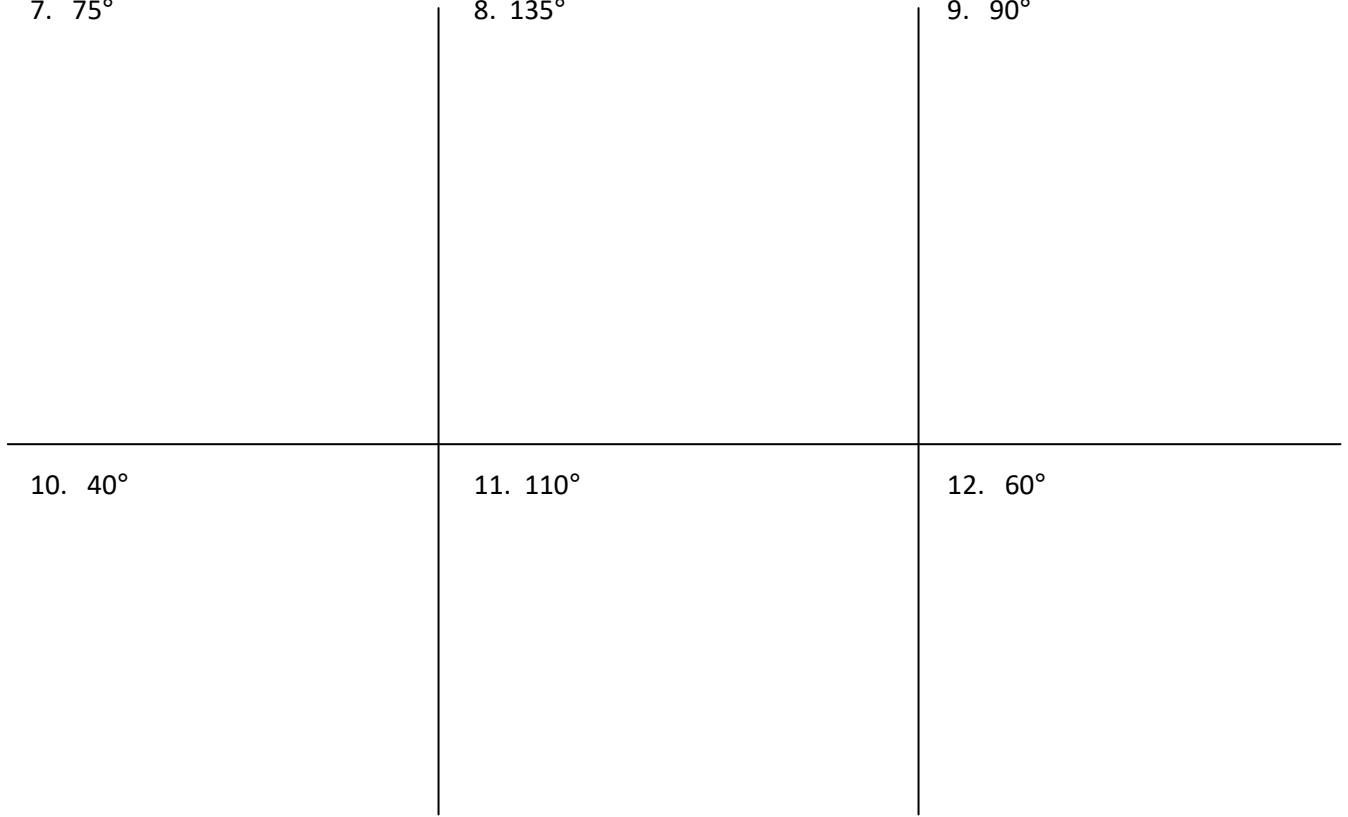
6. ST bisects  $\angle RSU$ .  $m\angle RSU = 6x + 4$ .  
 $m\angle RST = 5x - 2$ . Solve for x

Construct a line segment for each

7.  $75^\circ$

8.  $135^\circ$

9.  $90^\circ$



Draw an example of each

13. Adjacent Angles:

14. Complementary Angle:

15. Supplementary Angles:

16. Linear Angles:

17. Vertical Angles:

18. Perpendicular Angles:

There will be 5 review questions from Study Guides 1&2