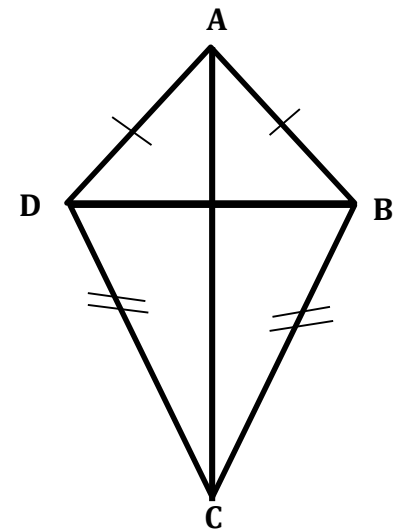
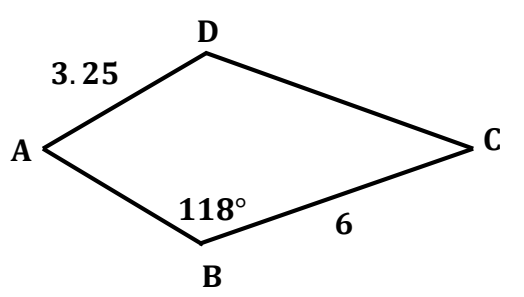


## 7.5 – TRAPEZOIDS & KITES

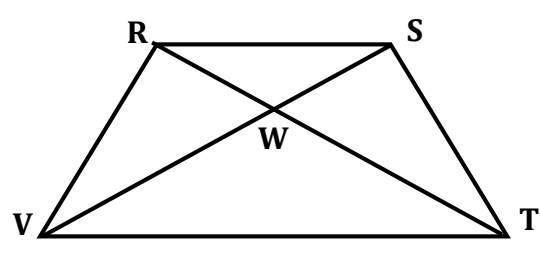
In kite ABCD,  $m\angle BAC = 35^\circ$  and  $m\angle BCD = 44^\circ$ .

1. $m\angle ABD =$ _____	
2. $m\angle DCA =$ _____	
3. $m\angle ABC =$ _____	

ABCD is a kite. Find each measure.

4. $m\angle D =$ _____	
5. $AB =$ _____	
6. $CD =$ _____	

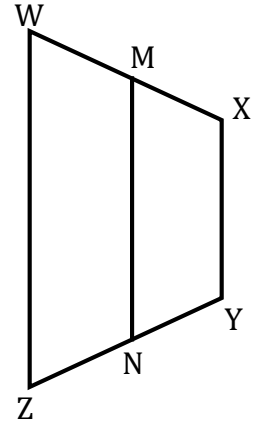
RSTV is an isosceles trapezoid. Decide whether each statement is TRUE or FALSE. Justify your answer.

7. TRUE or FALSE Why?	$\overline{TR} \perp \overline{SV}$	
8. TRUE or FALSE Why?	$\angle RVT \cong \angle STV$	
9. TRUE or FALSE Why?	$\angle SRV$ & $\angle TVR$ are supplementary.	

WXYZ is an isosceles trapezoid with bases  $\overline{WZ}$  and  $\overline{XY}$  and median  $\overline{MN}$ . Use the given information to solve each problem.

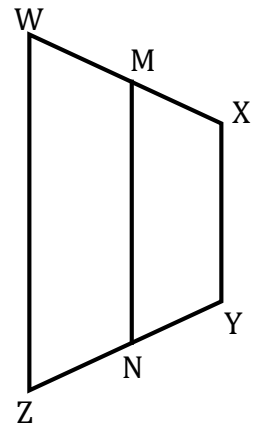
10.  $MN =$  \_\_\_\_\_

Find MN if  $WZ = 11$  and  $XY = 3$ .



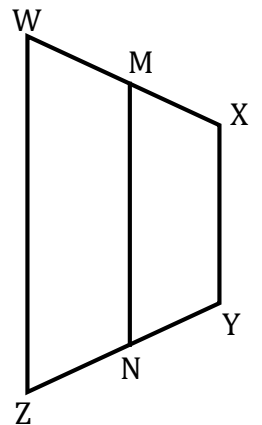
11.  $m\angle XMN =$  \_\_\_\_\_

Find  $m\angle XMN$  if  $m\angle WZN = 78^\circ$ .



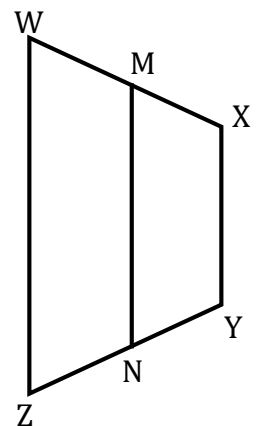
12.  $XY =$  \_\_\_\_\_

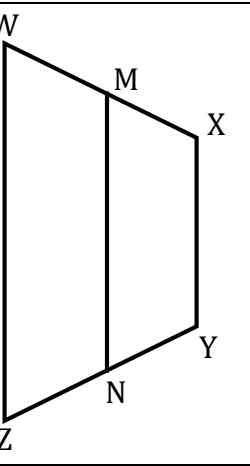
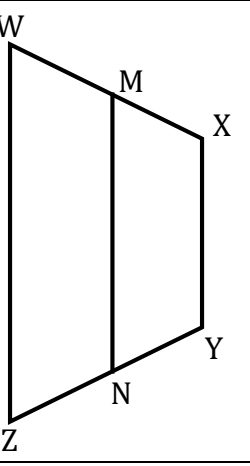
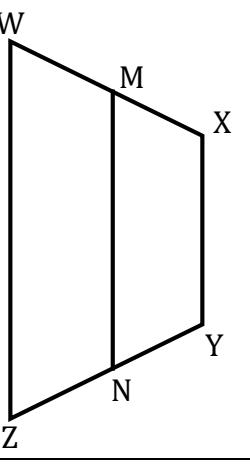
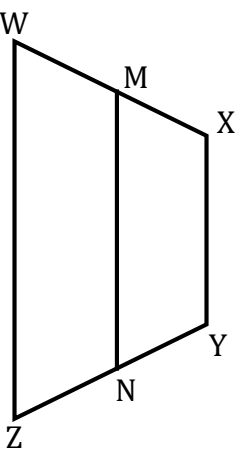
If  $MN = 10$  and  $WZ = 14$ , find XY.



13.  $x =$  \_\_\_\_\_

What is the value of 'x' if  $m\angle MWZ = (15x - 5)^\circ$  and  $m\angle WZN = (90 - 4x)^\circ$ ?



<p>14. <math>x =</math> _____</p>	<p>If <math>m\angle XWZ = (2x - 7)^\circ</math> and <math>m\angle XYZ = 117^\circ</math>, find the value of 'x'.</p>	
<p>15. <math>x =</math> _____</p>	<p>If <math>MN = 60</math>, <math>XY = 4x - 1</math>, and <math>WZ = 6x + 11</math>, find the value of 'x'.</p>	
<p>16. <math>x =</math> _____</p>	<p>If <math>MN = 10x + 3</math>, <math>WZ = 11</math>, and <math>XY = 8x + 19</math>, find the value of 'x'.</p>	
<p>17. <math>x =</math> _____</p>	<p>If <math>MN = 2x + 1</math>, <math>XY = 8</math>, and <math>WZ = 3x - 3</math>, find the value of 'x'.</p>	

**REVIEW PROBLEMS**

Find each of the following.

18. $m\angle E =$ _____	In rhombus BCDE, $m\angle B = 68^\circ$ . Find $m\angle E$ .
19. $m\angle B =$ _____	In parallelogram ABCD, $m\angle A = (8x - 16)^\circ$ and $m\angle C = (2x + 20)^\circ$ . Find $m\angle B$ .
20. $x =$ _____	In rectangle LMNO, $LN = 4x - 12$ , and $OM = 20$ . Find the value of 'x'.
21. $x =$ _____	The diagonals of rhombus WXYZ intersect at A. If $m\angle WAX = (9x - 9)^\circ$ , find the value of 'x'.
22. $m\angle MLO =$ _____	In rhombus LMNO, the diagonals intersect at X. If $m\angle LMO = 32^\circ$ , find $m\angle MLO$ .

Determine if the following statements are TRUE or FALSE. If false, provide a counterexample.

23. TRUE or FALSE Counterexample:	Every quadrilateral is a parallelogram.
24. TRUE or FALSE Counterexample:	If quadrilateral ABCD is a parallelogram, then $\overline{AB} \parallel \overline{CD}$ .
25. TRUE or FALSE Counterexample:	If both pairs of opposite angles in a quadrilateral are congruent, then the quadrilateral is a parallelogram.
26. TRUE or FALSE Counterexample:	If MNOP is a rectangle, then it is a parallelogram.