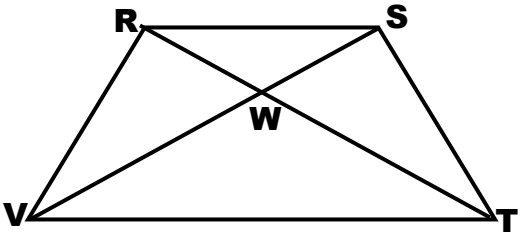
NAME_____**DATE**_____**PER.**_____

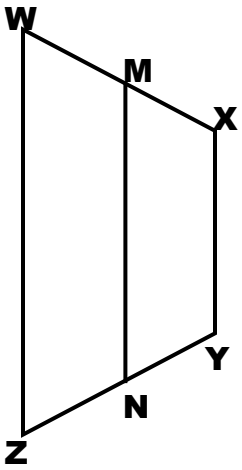
TRAPEZOIDS

RSTV is an <u>isosceles</u> trapezoid. Decide whether each statement is TRUE or FALSE. Justify your answer with the correct property written out.



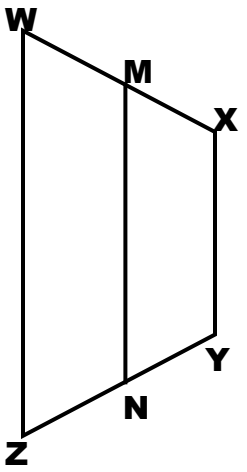
1. TRUE or FALSE Why?	$\overline{TR} \perp \overline{SV}$
2. TRUE or FALSE Why?	$\angle RVT \cong \angle STV$
3. TRUE or FALSE Why?	$\angle SRV$ & $\angle TVR$ are supplementary.

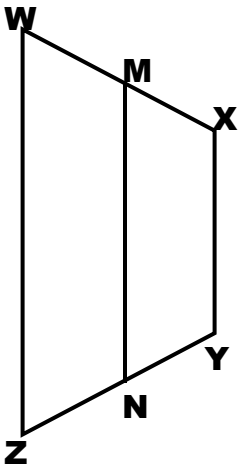
WXYZ is an <u>isosceles</u> trapezoid with bases $\overline{WZ}$ and $\overline{XY}$ and midsegment $\overline{MN}$. Use the given information to solve each problem 4 - 11.



4. MN = _____	Find MN if WZ = 11 and XY = 3.
5. $m\angle XMN$ = _____	Find $m\angle XMN$ if $m\angle WZN = 78°$.
6. XY = _____	If MN = 10 and WZ = 14, find XY.
7. x = _____	What is the value of 'x' if $m\angle MWZ = (15x - 5)°$ and $m\angle WZN = (90 - 4x)°$?

8. x = _____	If m∠XWZ = (2x – 7)° and m∠XYZ = 117°, find the value of 'x'.
9. x = _____	If MN = 60, XY = 4x – 1, and WZ = 6x + 11, find the value of 'x'.
10. x = _____	If MN = 10x + 3, WZ = 11, and XY = 8x + 19, find the value of 'x'.
11. x = _____	If MN = 2x + 1, XY = 8, and WZ = 3x – 3, find the value of 'x'.





REVIEW PROBLEMS
Find each of the following – be sure to draw a picture first.

12. m∠E = _____	In rhombus BCDE, m∠B = 68°. Find m∠E.

13. m∠B = _____	In parallelogram ABCD, m∠A = (8x – 16)° and m∠C = (2x + 20)°. Find m∠B.
14. x = _____	In rectangle LMNO, LN = 4x – 12, and OM = 20. Find the value of 'x'.
15. x = _____	The diagonals of rhombus WXYZ intersect at A. If m∠WAX = (9x – 9)°, find the value of 'x'.
16. m∠MLO = _____	In rhombus LMNO, the diagonals intersect at X. If m∠LMO = 32°, find m∠MLO.

Determine if the following statements are TRUE or FALSE. If false, tell why by giving the property or an example that proves it false.

17. TRUE or FALSE Why?	Every quadrilateral is a parallelogram.
18. TRUE or FALSE Why?	If quadrilateral ABCD is a parallelogram, then AB ∥ CD.
19. TRUE or FALSE Why?	If both pairs of opposite angles in a quadrilateral are congruent, then the quadrilateral is a parallelogram.
20. TRUE or FALSE Why?	If MNOP is a rectangle, then it is a parallelogram.