

# EXERCISES

## Practice

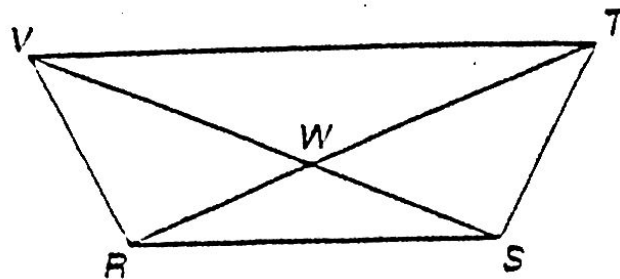
$RSTV$  is an isosceles trapezoid. Decide whether each statement is true or false. Explain your reasoning.

16.  $\overline{TR} \perp \overline{SV}$

17.  $\angle TRV \cong \angle VST$

18.  $\angle RVT \cong \angle STV$

19.  $\angle SRV$  and  $\angle TVR$  are supplementary.



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

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

21. Find  $m\angle XMN$  if  $m\angle WZN = 78$ .

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

23. What is the value of  $x$  if  $m\angle MNZ = 15x - 5$   
and  $m\angle WZN = 90 - 4x$ ?

24. If  $XY = 21.7$  and  $ZW = 93.6$ , find  $MN$ .

25. If  $m\angle XWZ = 2x - 7$  and  $m\angle XYZ = 117$ , find the value of  $x$ .

26. If  $MN = 60$ ,  $XY = 4x - 1$ , and  $WZ = 6x + 11$ , find the value of  $x$ .

27. If  $MN = 10x + 3$ ,  $WZ = 11$ , and  $XY = 8x + 19$ , find the value of  $x$ .

28. If  $MN = 2x - 1$ ,  $XY = 8$ , and  $WZ = 3x - 3$ , find the value of  $x$ .

