

The flag of Jamaica is a rectangle with stripes along the diagonals. In rectangle $QRST$, $QS = 80.5$, and $RS = 36$. Find each length.

18. SP 19. QT 20. TR 21. TP

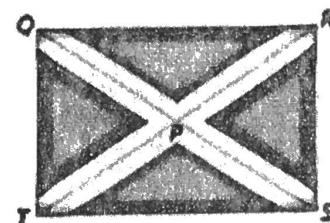
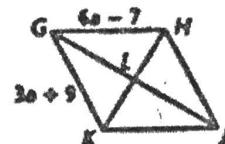
$GHJK$ is a rhombus. Find each measure.

22. HJ

23. $m\angle HJG$ and $m\angle GHJ$ if $m\angle JLH = (4b - 6)^\circ$ and $m\angle JKH = (2b + 11)^\circ$

24. Given: $QSTV$ is a rhombus. $PT \cong RT$

Prove: $\overline{PQ} \cong \overline{RQ}$



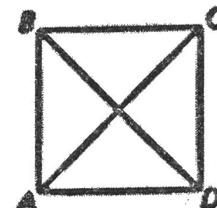
Determine if the conclusion is valid. If not, tell what additional information is needed to make it valid.

25. Given: $\overline{AC} \perp \overline{BD}$

Conclusion: $ABCD$ is a rhombus.

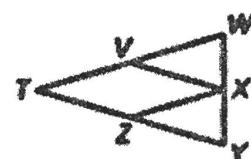
26. Given: $\overline{AB} \cong \overline{CD}$, $\overline{AC} \cong \overline{BD}$, $\overline{AB} \parallel \overline{CD}$

Conclusion: $ABCD$ is a rectangle.



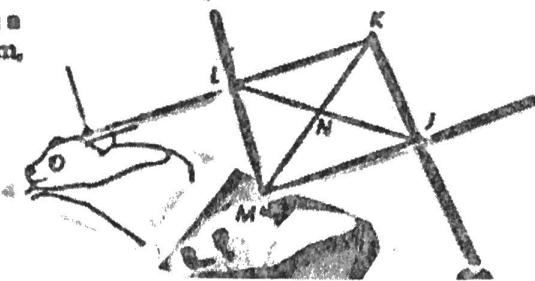
29. Given: VX and ZX are midsegments of $\triangle TWY$. $TW \cong TY$

Prove: $TVXZ$ is a rhombus.



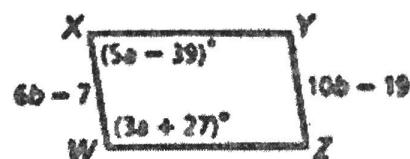
A pantograph is used to copy drawings. Its legs form a parallelogram. In $\square KLMN$, $LM = 17$ cm, $KN = 13.5$ cm, and $m\angle KJM = 102^\circ$. Find each measure.

1. KM
2. KJ
3. MN
4. $m\angle JKL$
5. $m\angle JML$
6. $m\angle KLM$
7. Three vertices of $\square ABCD$ are $A(-3, 1)$, $B(5, 7)$, and $C(6, 2)$. Find the coordinates of vertex D .

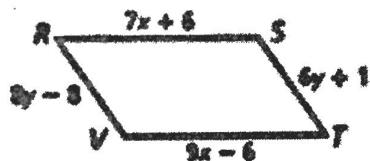


$WXYZ$ is a parallelogram.
Find each measure.

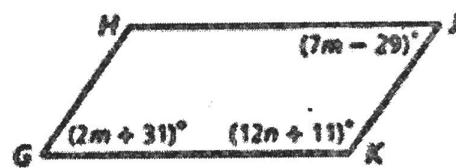
8. WX
9. YZ
10. $m\angle X$
11. $m\angle W$



12. Show that $RSTV$ is a parallelogram for $x = 6$ and $y = 4.5$.



13. Show that $GHJK$ is a parallelogram for $m = 12$ and $n = 9.5$.



Determine if each quadrilateral must be a parallelogram. Justify your answers.

