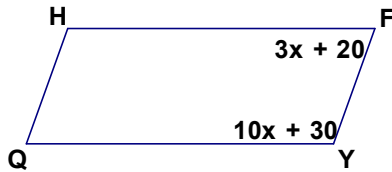


Name _____
Mr. Schlansky

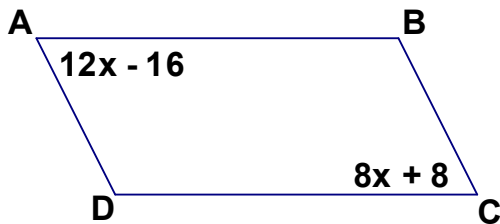
Date _____
Geometry

Quadrilateral Properties with Algebra Angles

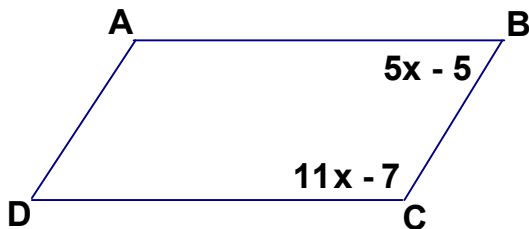
1. HFYQ is a parallelogram. Find $m\angle FHQ$



2. ABCD is a parallelogram. Find $m\angle BCD$.

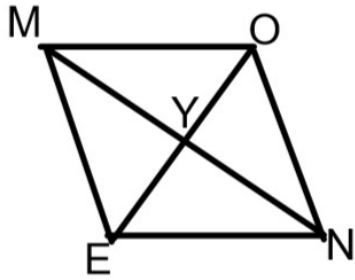


3. ABCD is a parallelogram. Find the measure of all four angles.



4. In rhombus ABCD, $\angle ACD = 30$. Find $\angle BDC$ and explain your answer.

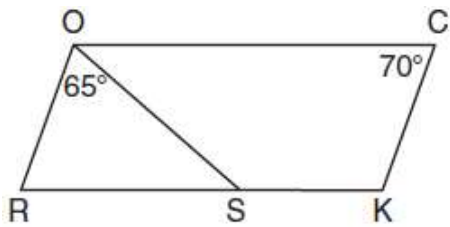
5. In rhombus MONE, $\angle OME = 76$. Find $\angle YON$ and explain your answer.



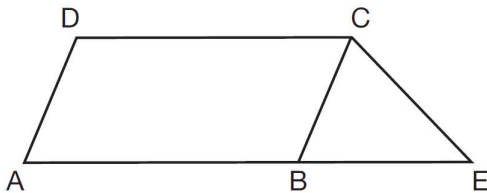
6. In the diagram below of parallelogram ROCK, $m\angle C$ is 70° and $m\angle ROS$ is 65° .

What is $m\angle KSO$?

- 1) 45°
- 2) 110°
- 3) 115°
- 4) 135°



7. In the diagram below, $ABCD$ is a parallelogram, \overline{AB} is extended through B to E , and \overline{CE} is drawn.



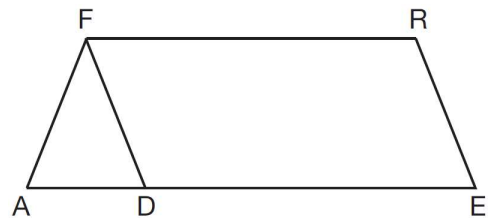
If $\overline{CE} \cong \overline{BE}$ and $m\angle D = 112^\circ$, what is $m\angle E$?

- 1) 44°
- 2) 56°
- 3) 68°
- 4) 112°

8. In the diagram of parallelogram FRED shown below, \overline{ED} is extended to A , and \overline{AF} is drawn such that $\overline{AF} \cong \overline{DF}$.

If $m\angle R = 124^\circ$, what is $m\angle AFD$?

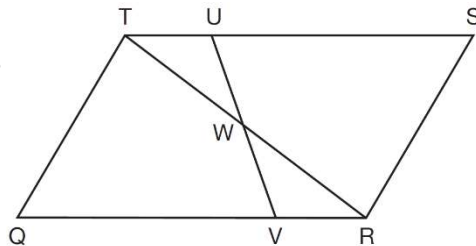
- 1) 124°
- 2) 112°
- 3) 68°
- 4) 56°



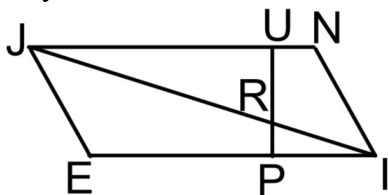
9. In parallelogram $QRST$ shown below, diagonal \overline{TR} is drawn, U and V are points on \overline{TS} and \overline{QR} , respectively, and \overline{UV} intersects \overline{TR} at W .

If $m\angle S = 60^\circ$, $m\angle SRT = 83^\circ$, and $m\angle TWU = 35^\circ$, what is $m\angle WVQ$?

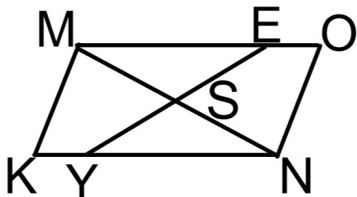
- 1) 37°
- 2) 60°
- 3) 72°
- 4) 83°



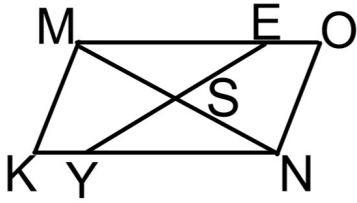
10. In parallelogram $JNIE$ shown below, diagonal \overline{JI} is drawn, $\overline{UP} \perp \overline{JN}$, \overline{JI} intersects \overline{UP} at R . If $m\angle JNI = 120$ and $m\angle JIN = 20$, find $m\angle PRI$ and $m\angle RJU$. Explain how you arrived at your answer.



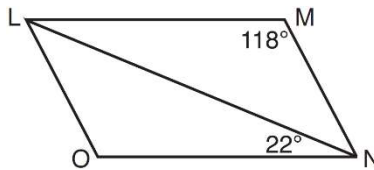
11. In parallelogram $MONK$ shown below, diagonal \overline{MN} is drawn, \overline{MN} intersects \overline{EY} at S . If $m\angle EMS = 20$ and $m\angle OES = 150$, find $m\angle NSY$. Explain how you arrived at your answer.



12. In parallelogram $MONK$ shown below, diagonal \overline{MN} is drawn, \overline{MN} intersects \overline{EY} at S . If $m\angle MON = 75$, $m\angle OES = 120$, and $m\angle ONS = 95$, find $m\angle ESM$. Explain how you arrived at your answer.



13. The diagram below shows parallelogram $LMNO$ with diagonal \overline{LN} , $m\angle M = 118^\circ$, and $m\angle LNO = 22^\circ$.



Explain why $m\angle NLO$ is 40 degrees.