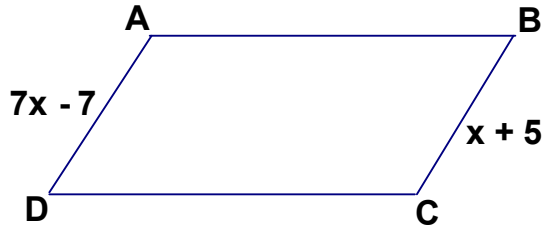


Name _____
Mr. Schlansky

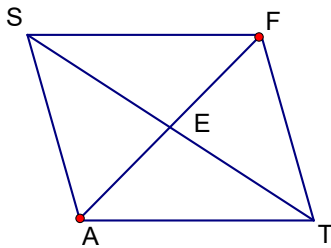
Date _____
Geometry

Quadrilateral Properties with Algebra Segments

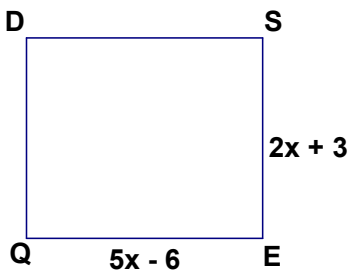
1. ABCD is a parallelogram. Find the measure of \overline{AD} and \overline{BC} and explain your answer.



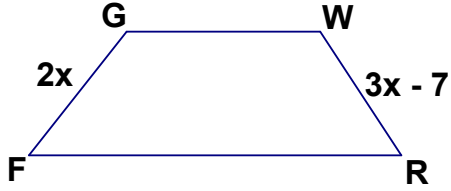
2. SFAT is a rhombus with $\overline{AE} = 2x - 3$ and $\overline{EF} = 5x - 21$. Find \overline{EF} and explain your answer.



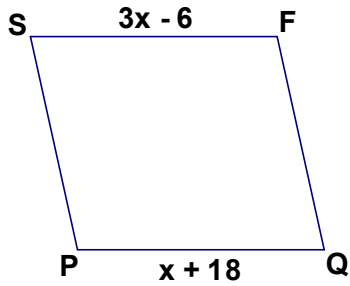
3. DSEQ is a square. $m\overline{QE} = 5x - 6$ and $m\overline{SE} = 2x + 3$. Find all sides of the square and explain your answer.



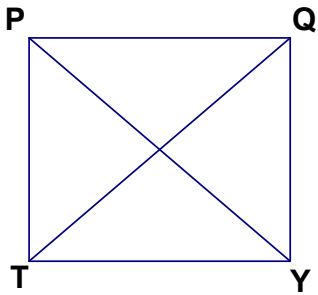
4. Quad FGWR is an isosceles trapezoid. Find \overline{WR} and explain your answer.



5. SFQP is a rhombus. Find \overline{FQ} and explain your answer.

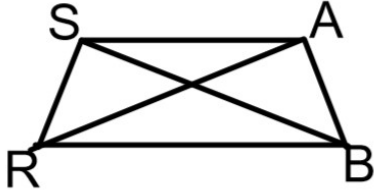


6. PQYT is a square. $\overline{QT} = 3x - 2$ and $\overline{PY} = 5x - 15$. Find \overline{QT} and \overline{PY} and explain your answer.

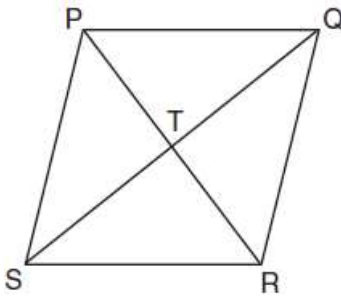


7. In rectangle ABCD, $\overline{AB} = x + 4$, $\overline{BC} = 4x$, $\overline{AC} = 6x - 2$, and $\overline{BD} = 3x + 4$. Find \overline{AD} .

8. In trapezoid $SABR$, $\overline{SA} = 2x + 2$, $\overline{SB} = 3x$, $\overline{RB} = 4x - 1$, and $\overline{AR} = 6x - 12$. What value of x would make $SABR$ an isosceles trapezoid?



9. In the diagram of rhombus $PQRS$ below, the diagonals \overline{PR} and \overline{QS} intersect at point T , $PR = 16$, and $QS = 30$. Determine and state the perimeter of $PQRS$.



10. A square has a diagonal that measures 4 inches. What is the length of one of its sides in simplest radical form?

11. A rhombus has diagonals that measure 6 and 8. Find the perimeter of the rhombus.