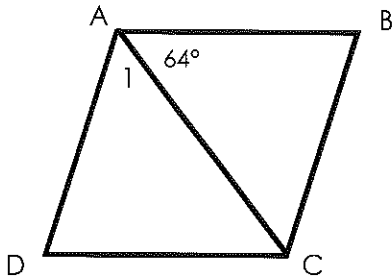
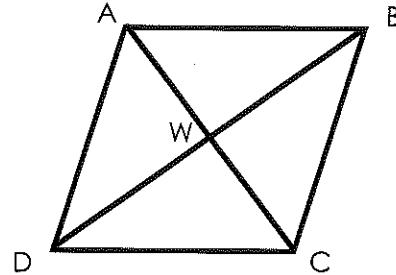


Independent Practice

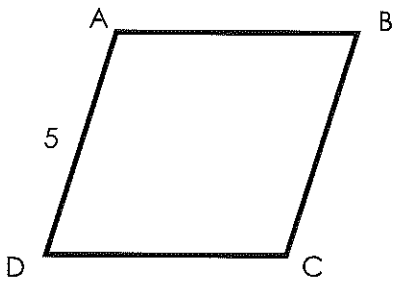
Fill in the missing side lengths or angles of each rhombus. State the property you used to solve the problem



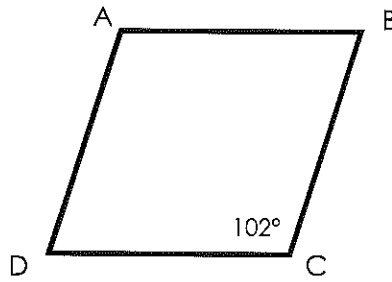
$\angle 1 = 64^\circ$, because diagonals bisect vertex C's



$\angle BWC = 90^\circ$, because diagonals are \perp

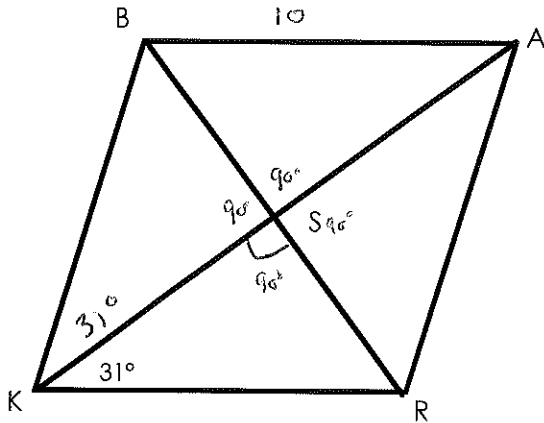


$AB = 5$, because All sides are \cong



$\angle B = 78^\circ$, because consecutive \angle 's are supp

Rhombus BARK is pictured below. Fill in the missing information and state the property that you used to answer the question

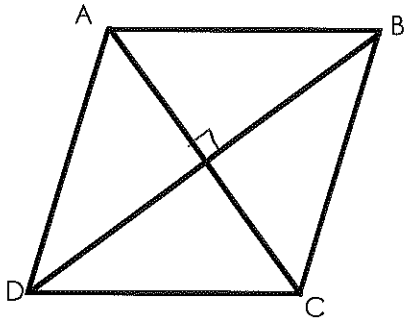


$\angle BKA = 31$, because diagonals bisect vertex C's

$\angle KSR = 90$, because diagonals are \perp

$AR = 10$, because all sides are \cong

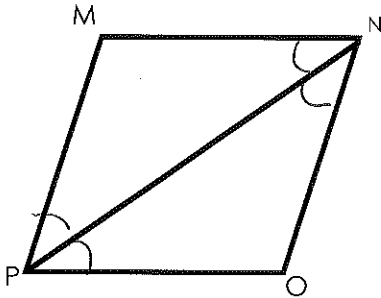
Given: In quadrilateral ABCD, diagonal $\overline{AC} \perp \overline{DB}$
 Prove that parallelogram ABCD is a rhombus



Proof

ABCD is a rhombus
 b/c diagonals are
 \perp

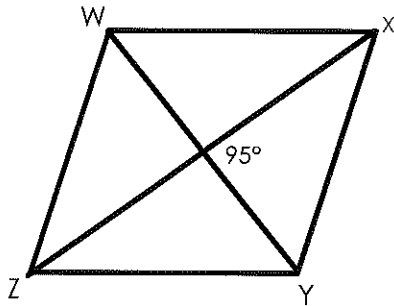
Given: In parallelogram MNOP, $\angle MNP \cong \angle ONP$ and $\angle MPN \cong \angle OPN$.
 Prove that MNOP is a rhombus.



Proof

MNOP is a rhombus
 b/c diagonals bisect
 vertex C's

Given: In quadrilateral WXYZ, $WX \parallel ZY$, $WZ \parallel XY$ and $\angle XTY = 95^\circ$.
 Prove that WXYZ is a parallelogram but NOT a rhombus



Proof

WXYZ is not a
 rhombus because
 diagonals are not
 \perp

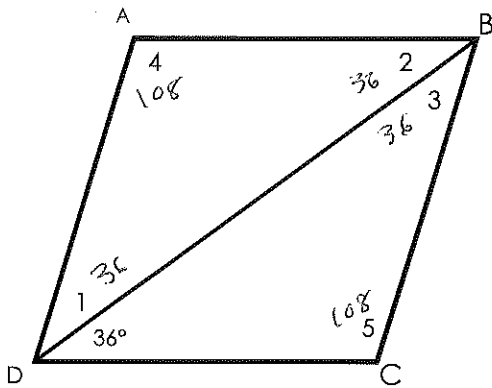
Which of the following properties proves a quadrilateral is a rhombus?

- A) Opposite sides are congruent
- B) Diagonals bisect each other
- C) Opposite angles are congruent
- D) Diagonals bisect opposite angles

Which of the following does NOT prove a parallelogram is a rhombus?

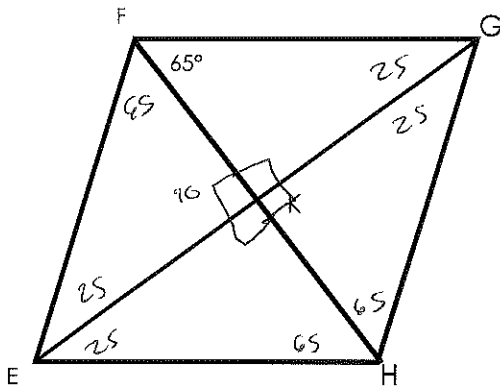
- A) All sides are congruent
- B) Opposite angles are congruent
- C) Diagonals are perpendicular

In rhombus ABCD, $\angle BDC = 36^\circ$. Find the measures of the angles in the chart below. Justify your answer.



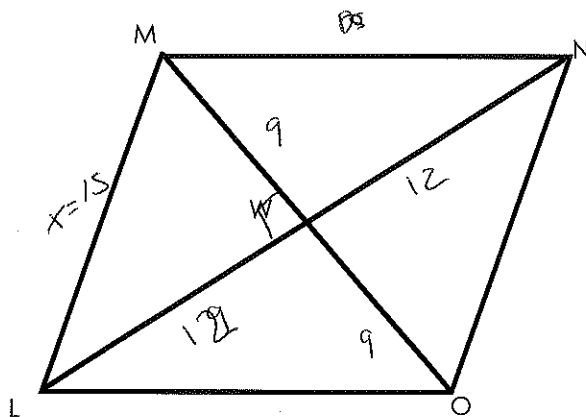
Angle	Measure	Reason
$\angle 1$		
$\angle 2$		
$\angle 3$		
$\angle 4$		
$\angle 5$		

Parallelogram FEHG is a rhombus and $\angle GFH = 65^\circ$. Find the measures of the angles in the chart below. Justify your answer.



Angle	Measure	Reason
$\angle EFH$		
$\angle GKH$		
$\angle FEH$		
$\angle FEG$		

In rhombus LMNO, $LN = 24$ and $MO = 18$.



1) What is the length of \overline{MW} and \overline{LW} ?

$$MW = 9$$

$$LW = 12$$

2) What is the length of \overline{LM} ?

$$9^2 + 12^2 = x^2 \quad \sqrt{225} = \sqrt{x^2}$$

$$81 + 144 = x^2 \quad 15 = x$$

3) What is the perimeter of LMNO?

$$15 \times 4 = \boxed{60}$$