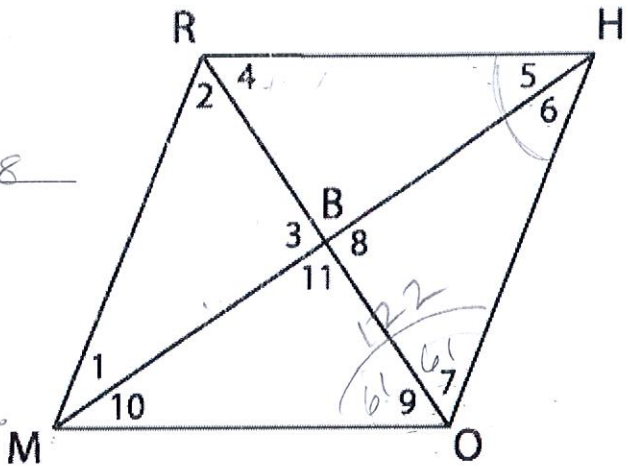
Geometry
Classwork – Rhombi & Squares

Name: key
Date: _____

- **A rhombus is a parallelogram with four congruent sides, perpendicular diagonals, and the diagonals bisect a pair of opposite angles.**
- **A square is a parallelogram with all the properties of a rectangle and rhombus.**

***RHOM* is a rhombus. Find the unknown measures. (Treat each problem independently.)**



1) If $OB = 2x + 1$ and $BR = 3x - 10$, then $OR =$ 46

$2x+1 = 3x-10$
$1 = x-10$
$x = 11$
$2(11)+1$
$= 23$

2) If $RM = 18$, then $RH =$ 18, $OH =$ 18, $OM =$ 18

3) If $m\angle 2 = 48^\circ$, then $m\angle MOH =$ 96°

$m\angle 4 = 48$ $48+48=96^\circ$

4) If $m\angle 7 = 61^\circ$, then $m\angle RHO =$ 58°

$m\angle 9 = 61$ $61+61=122^\circ$ $180-122=58^\circ$

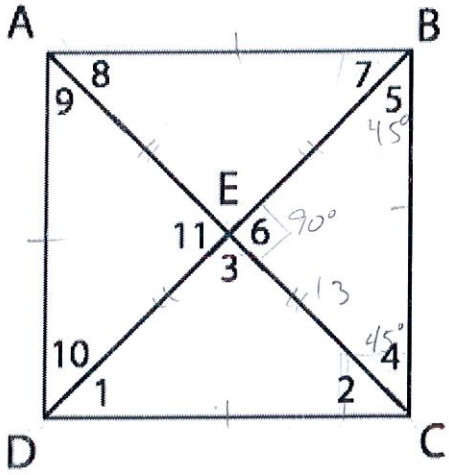
5) If $m\angle 3 = 8x - 6$, then x = 12

$8x-6=90$
$8x=96$
$x=12$

***ABCD* is a square. Find the unknown measures. (Treat each problem independently.)**

6) $m\angle EAB =$ 45°

7) $m\angle DEC =$ 90°



8) If $m\angle 4 = 3x + 15$, then x = 10

$3x+15=45$
$3x=30$
$x=10$

9) If $AE = 3x - 2$ and $EC = 2x + 3$, then $DB =$ 26

$3x-2=2x+3$
$x-2=3$
$x=5$
$EC=13$

10) If $AD = 2x - 1$ and $BC = 5x - 13$, then

$AD =$ 7, $BC =$ 7, $AB =$ 7, $DC =$ 7

$2x-1 = 5x-13$
$-1 = 3x-13$
$12 = 3x$
$4 = x$

AD: $2(4)-1 = 7$
BC: $5(4)-13 = 7$