Unit 7 Review

1. Using rectangle PRST
    a. Name all congruent segments.

    ____ ≅ ____ ≅ ____ ≅ ____

    ____ ≅ ____,   ____ ≅ ____,   ____ ≅ ____

    b. Name all congruent angles

    _____ ≅ _____ ≅ _____ ≅ _____

    _____ ≅ _____ ≅ _____ ≅ _____

    _____ ≅ _____ ≅ _____ ≅ _____

    c. Name all parallel lines

    ____ // ____,   ____ // ____

    d. Name all perpendicular lines

    ____ ⊥ ____,   ____ ⊥ ____,   ____ ⊥ ____,   ____ ⊥ ____
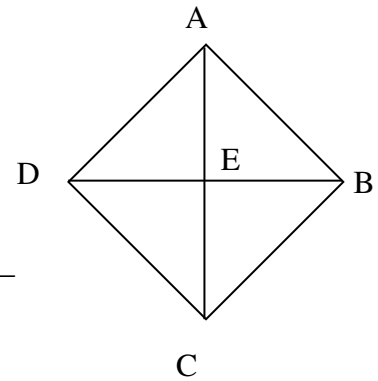
2. Using square ABCD
    a. Name all congruent segments

    ____ ≅ ____ ≅ ____ ≅ ____   ____ ≅ ____

    ____ ≅ ____ ≅ ____ ≅ ____

    b. Name all the right angles

    _____, _____, _____, _____, _____, _____, _____, _____
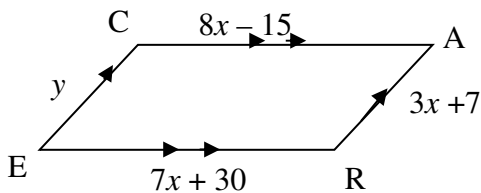
    c. Name the parallel lines
    ____ // ____,   ____ // ____

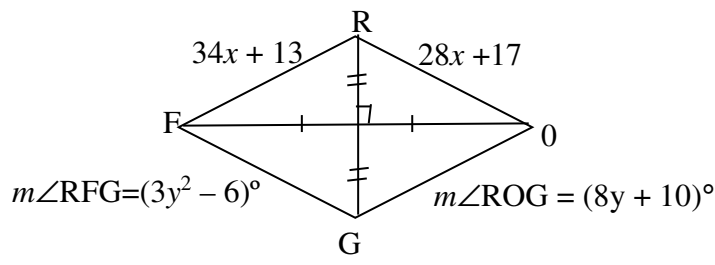Label the polygon. Solve for the indicated part.

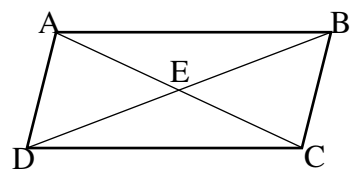3. CARE is a _____

    $x =$_____   CA=_____

    $y =$_____   AR=_____   If the slope of $\overline{CE}$ is $\dfrac{5}{3}$, then the slope of $\overline{AR}$ is _____

4. FROG is a _____

$34x + 13$ R $28x +17$

F ———————————— 0

$m\angle RFG=(3y^2 – 6)°$ $m\angle ROG = (8y + 10)°$

G

$x =$ _____   FR _____

$y =$ _____ $m \angle RFG =$ _____
                   $m \angle FGO =$ _____

5. Given: $AB \cong CD$, $\angle ABE \cong \angle CDE$
   Prove: ABCD is a parallelogram

Statement	Reason
$AB \cong CD$	
$\angle ABE \cong \angle CDE$	
$AB // CD$	
$\therefore$ABCD is parallelogram	

6. Given: QRST is a parallelogram, X is the midpoint of QS
   Prove: Diagonals bisect each other in a parallelogram

Statement	Reason
QRST is a parallelogram, X is the midpoint of QS	
$QT // SR$	
$QX \cong SX$	
$\angle QTX \cong \angle SRX$	
$\angle TQX \cong \angle RSX$	
$\triangle QTX \cong \triangle SRX$	
$TX \cong RX$	
X is the midpoint of RT	
$\therefore$Diagonals bisect each other	

A) Determine the type of quadrilateral and justify your reasoning.
B) Find the perimeter and area of the quadrilateral.
7. $A(0, -4)$, $B(-6, 1)$, $C(3, 7)$, and $D(9, 2)$

8. $E(0, -2)$, $F(-3, 0)$, $G(-1, 3)$, and $H(2, 1)$