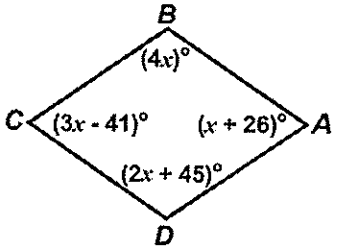
Geometry
Chapter 6 Review

Name_____

QUADRILATERAL

1. **Solve the following.**



$x =$ _____

$m\angle A =$ _____

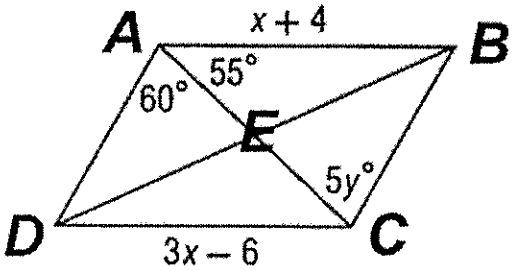
$m\angle B =$ _____

$m\angle C =$ _____

$m\angle D =$ _____

PARALLELOGRAM

2. **Solve the following.**



$\overline{AE} \cong$ _____ $\frac{1}{2}\overline{DB} \cong$ _____ $\overline{AD} \parallel$ _____

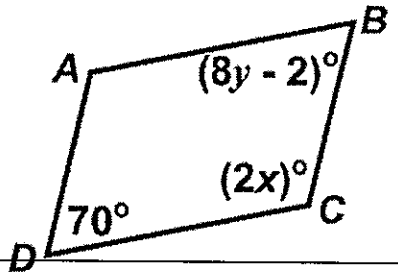
$\Delta AEB \cong$ _____ $\angle DBA \cong$ _____ $\angle CBE \cong$ _____

$x =$ _____ $DC =$ _____ $m\angle DCA =$ _____

$m\angle DAB =$ _____ $m\angle BCA =$ _____ $m\angle ADC =$ _____

$y =$ _____

3. **Solve.**



$x =$ _____ $y =$ _____

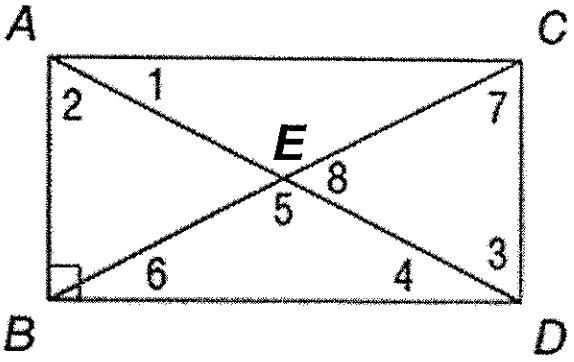
$m\angle A =$ _____

$m\angle B =$ _____

$m\angle C =$ _____

RECTANGLE

4. **Given $m\angle 7 = 53°$, $CD = 5$, $AD = 3x - 8$, $BE = 1.5y$, and $BC = 13$, solve for the following.**



$m\angle 1 =$ _____ $m\angle 2 =$ _____

$m\angle 3 =$ _____ $m\angle 4 =$ _____

$m\angle 5 =$ _____ $m\angle 6 =$ _____

$m\angle 8 =$ _____ $x =$ _____

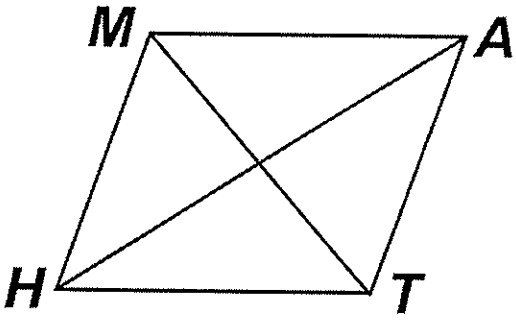
$y =$ _____ $AD =$ _____

BE_____ AC_____

$Perimeter ACDB =$ _____

RHOMBUS

4. Given Rhombus *MATH*, where $MA = 3y - 9$, $HM = 2y + 2$, $\angle MAH = 5x + 2$ and $\angle THA = 15x - 38$, find the following.



$x =$ _____ $m\angle MAH =$ _____

$m\angle TAH =$ _____ $m\angle MAT =$ _____

$m\angle MHA =$ _____ $m\angle THA =$ _____

$m\angle AMT =$ _____ $m\angle HMT =$ _____

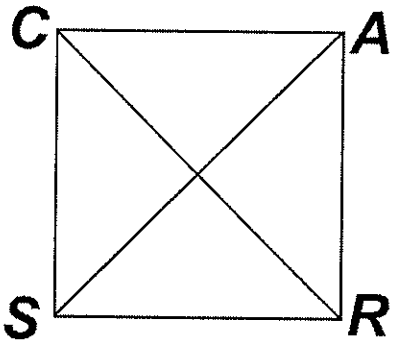
$m\angle HMA =$ _____ $m\angle HTA =$ _____

$m\angle HTM =$ _____ $m\angle ATM =$ _____

$y =$ _____ $AT =$ _____

SQUARE

5. Given the following square *CARS*, where $SR = 3x - 6$, $AR = x + 4$, and $m\angle SCA = 2y - 14$, find the following.



$x =$ _____ $CA =$ _____

$y =$ _____ $m\angle SAR =$ _____

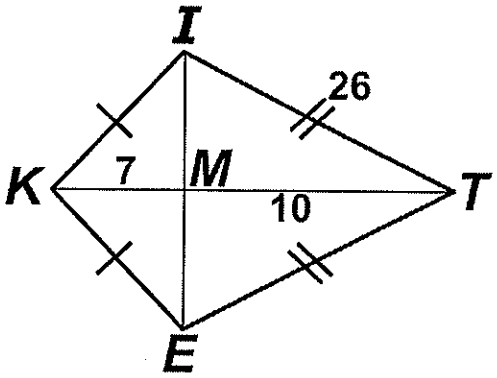
$m\angle SRA =$ _____ $CR =$ _____

$Area\ CARS =$ _____

$Perimeter\ CARS =$ _____

KITE

6. Given the following kite below, where $m\angle ITE = 74$, $m\angle IKE = 96$, and $\overline{IE}$ *bisects* $\angle KET$, find the following.



$m\angle KIT =$ _____ $m\angle KET =$ _____

$m\angle KEM =$ _____ $m\angle MET =$ _____

$m\angle KME =$ _____ $IM =$ _____

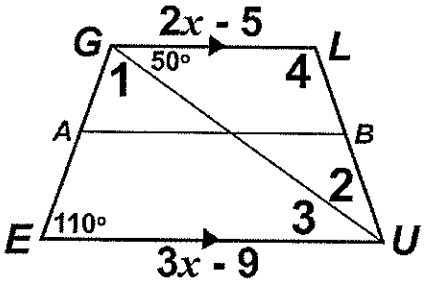
$EI =$ _____ $IK =$ _____

$Area\ KITE =$ _____

$Perimeter\ KITE =$ _____

ISOSCELES TRAPEZOID

7. **Given isosceles trapezoid *GLUE* where $\overline{GE} \cong \overline{LU}$ and $\overline{AB} = 18$ and is the midsegment, find the following.**



$m\angle 1 =$ _____ $m\angle 2 =$ _____

$m\angle 3 =$ _____ $m\angle 4 =$ _____

$x =$ _____ $GL =$ _____

$EU =$ _____

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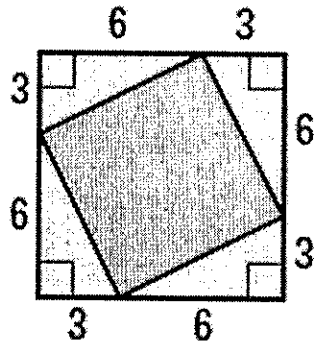
8. **It is given that *BUGS* is a parallelogram. Decide whether it is a rectangle, a rhombus, an isosceles trapezoid, or a square.**

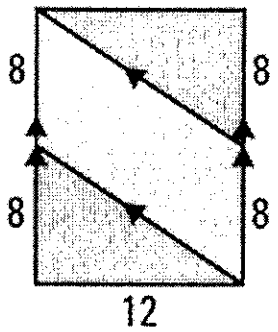
$B(-4,\ 0)$
$U(3,\ 7)$
$G(6,\ 4)$
$S(-1, -3)$

Find the area of the shaded and unshaded parts.

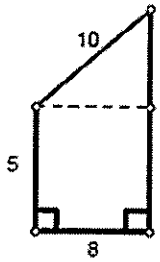
9.



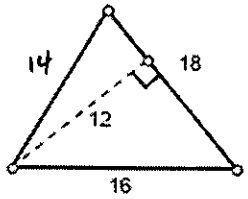
10.



11. Find the area of the trapezoid. **HINT:** Use Pythagorean Theorem to help you find remaining base.

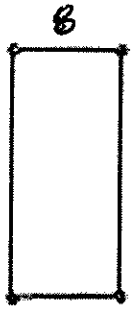


12. Find the area of the triangle.

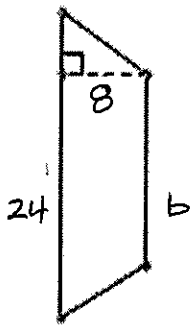


13. A rectangle having an area of 60 square meters has a length of 50 meters. Find the rectangle's width.

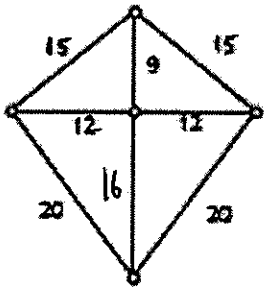
14. Find the area of the rectangle if the perimeter is 46 meters.



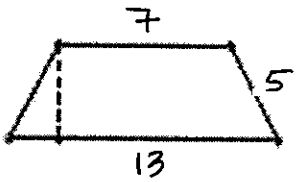
15. The area of the trapezoid is 180 square meters. Find the length of the missing base.



16. Find the area of the kite.



17. Find the height of the trapezoid if it has an area of 50 square inches.



18. Find the area a square with a perimeter of 100 cm.

19. Find the area of a kite with diagonals of length 10 and 25 meters.

Area of Rhombus =

Area of Rectangle =

Area of Triangle =

Area of Trapezoid =

Area of Parallelogram =

Area of Square =

Area of Kite =

Midsegment =