Name $\qquad$
$\qquad$ Date $\qquad$

Directions: Use the grid and trapezoid provided to discover the properties of a trapezoid. WRITE ALL MEASUREMENTS ON THE DIAGRAM


1) Find the length of each side. What do you notice?
2) Find the measure of the angles. What do you notice?
3) Find point $E$ the midpoint of $A B$ and point $F$ the midpoint of $C D$. Then find the length of EF. What do you notice?
4) Find the length of the diagonals BD and AC. What do you notice?
10.3 Trapezoids

Pre-AP Geometry

Name
Period $\qquad$

## Practice

Find the variables.

2. RSTV is an isosceles trapezoid with legs RV and ST. The diagonals intersect at W. $\angle \mathrm{RWS}=98^{\circ}, \angle \mathrm{STW}=37^{\circ}$. Find $\angle \mathrm{SRW}, \angle \mathrm{RVT}$, and $\angle \mathrm{VRT}$.

$$
\mathrm{m} \angle \mathrm{SRW}=
$$



$$
\begin{aligned}
& \mathrm{m} \angle \mathrm{RVT}= \\
& \mathrm{m} \angle \mathrm{VRT}=
\end{aligned}
$$

3. ABCD is an isosceles trapezoid with legs BC and AD . The diagonals intersect at W . $B D=50 . A W=2 x . W C=3 y . A D=5 x . B C=3 y+27$. Find $x$ and $y$.

$$
\begin{aligned}
& x= \\
& y=
\end{aligned}
$$

4. Find the value of $x$.


$$
x=
$$

