

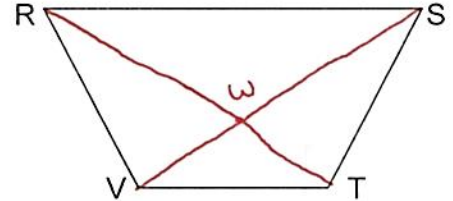
PAP Geometry
Kites & Trapezoids HW

Name Key
Date _____ Period _____

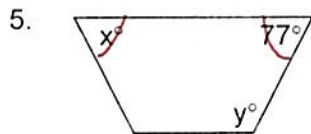
Show work. Round answers to the hundredth if necessary.

RSTV is an isosceles trapezoid whose diagonals meet at W. Determine if each statement is true or false.

- F 1. $\overline{TR} \perp \overline{SV}$
T 2. $\angle TRV \cong \angle VST$
T 3. $\angle RVT \cong \angle STV$
T 4. $\angle SRV$ and $\angle TVR$ are supplementary

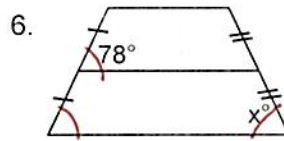


Determine the value of the variables in each isosceles trapezoid.

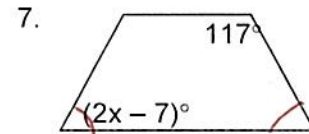


$$x = 77$$

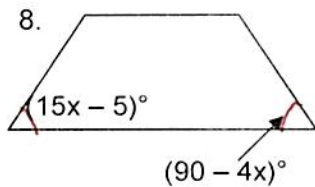
$$y = 103$$



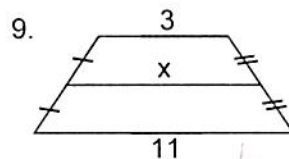
$$x = 78$$



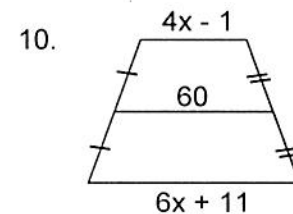
$$x = 35$$



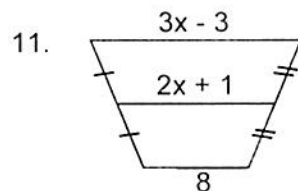
$$x = 5$$



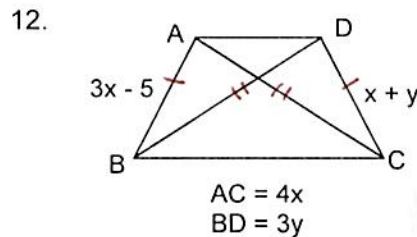
$$x = 7$$



$$x = 11$$



$$x = 3$$

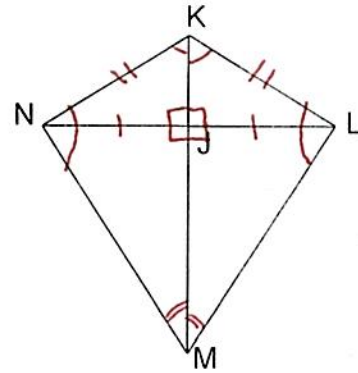


$$x = 7.5$$

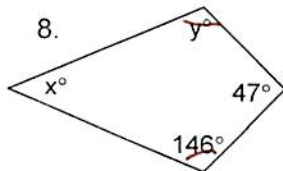
$$y = 10$$

KLMN is a kite. Determine if each statement is true or false.

- | | |
|----------|--|
| <u>T</u> | 1. $\overline{KM} \perp \overline{LN}$ |
| <u>T</u> | 2. $\angle KJN \cong \angle MJL$ |
| <u>F</u> | 3. $\angle NKM \cong \angle KMN$ |
| <u>F</u> | 4. $\overline{KJ} \cong \overline{JM}$ |
| <u>T</u> | 5. $\overline{JN} \cong \overline{JL}$ |
| <u>T</u> | 6. $\overline{KN} \cong \overline{LK}$ |
| <u>T</u> | 7. $\angle NKM \cong \angle LKM$ |

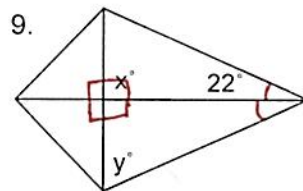


Determine value of the variables in each kite.



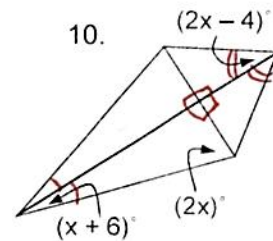
$$y = 146$$

$$x = 21$$

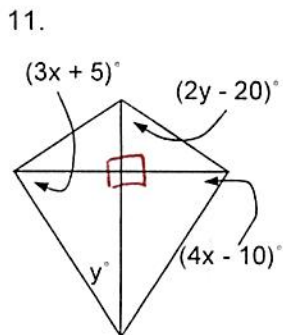


$$x = 90$$

$$y = 68$$

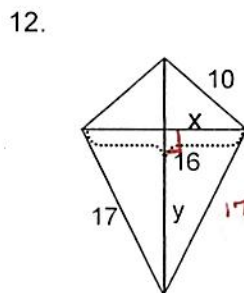


$$x = 28$$



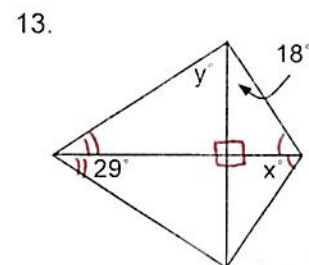
$$x = 15$$

$$y = 40$$



$$x = 8$$

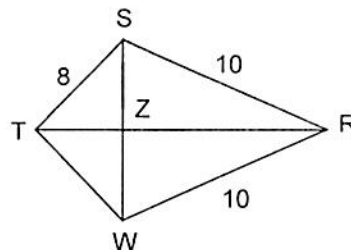
$$y = 15$$



$$x = 72^\circ$$

$$y = 61$$

14. Given kite RSTW.
 a. If $SW = 8$, find RT to nearest tenth.
 b. If $RZ = 8$, find SW to nearest tenth.



~~(a) RT = 16.1~~ (a) $RT = 16.1$

(b) $SW = 12$