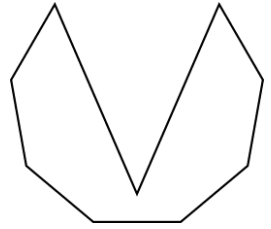


Name:

Date:

OPTIONAL PRACTICE TEST

1. a. Name the polygon by the number of sides. _____
b. Determine whether the polygon is concave or convex. _____
c. Determine whether the polygon is regular or not regular. _____

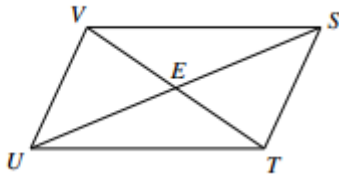


2. Find the measure of each exterior angle of a regular polygon whose sum of the measures of the interior angles is 6120° .

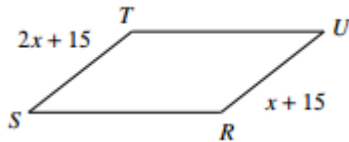
3. What is the sum of the exterior angles of a regular 43-gon?

4. STUV is a parallelogram. Find TE.

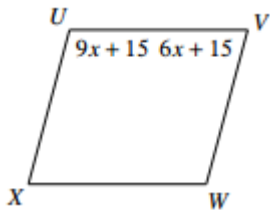
$$\begin{aligned} TE &= 4 + 2x \\ EV &= 4x - 4 \\ \text{Find } TE \end{aligned}$$



5. STUR is a parallelogram. Find ST.

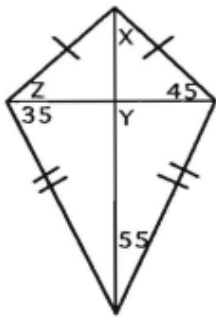


6. UVWX is a parallelogram. Find $m\angle V$.

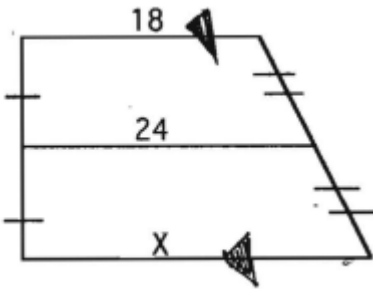


7. ABCD is a rhombus (draw it yourself!). If $m\angle ADC = 40^\circ$, find $m\angle DAC$.

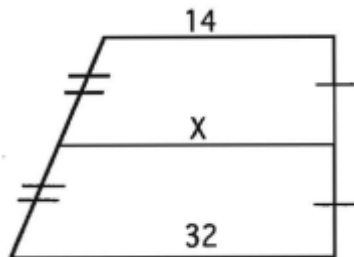
8. Find the values of x , y , and z .



9. Find the value of x .



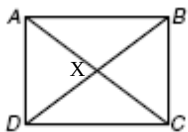
10. Find the value of x .



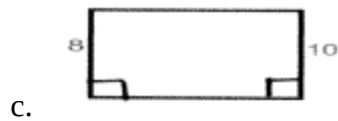
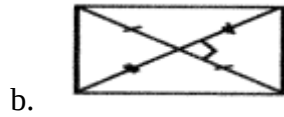
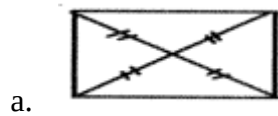
11. Decide whether the statement is always, sometimes, or never true.

- A rhombus is equilateral.
- A rhombus is equiangular.
- The diagonals of a rectangle are perpendicular.
- A square is a rectangle.
- A kite is a square.

12. ABCD is a rectangle. If $DX = 6x - 7$ and $AX = 4x + 9$, find DB.

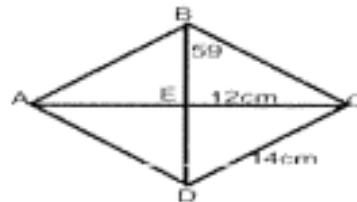


13. First, determine whether the quadrilateral is a parallelogram and if so, why. If it is a parallelogram, determine whether it is a special parallelogram (i.e. rectangle, rhombus, or square) and why.

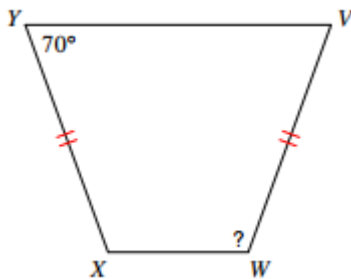


14. ABCD is a rhombus. Find the following: (in the diagram, $m\angle EBC = 59^\circ$, $EC = 12$ cm and $CD = 14$ cm.)

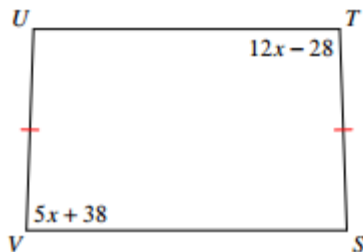
- $m\angle BCE$
- $m\angle BEC$
- $m\angle ABD$
- AC
- AD
- ED
- BD



15. XYVW is a trapezoid. Find $m\angle W$.

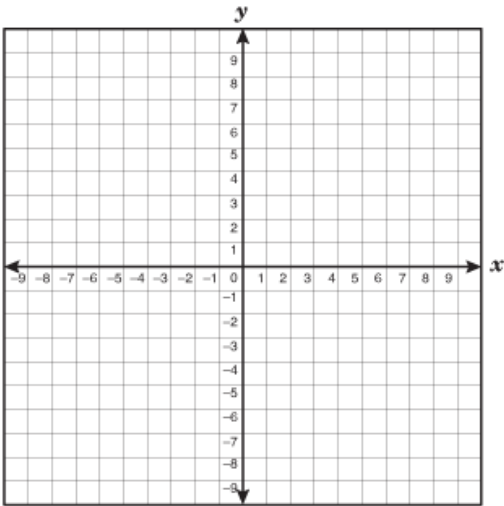


16. STUV is a trapezoid. Find $m\angle V$.



17. Write a coordinate proof to show that ABCD is a parallelogram.

A(-4, -2), B(5, -2), C(8, 4), D(-1, 4)



18. Write a two-column proof.

Given: SCRA is a kite with $\overline{RC} \cong \overline{RA}$

Prove: SCHA is a kite

Statements	Reasons

