

Name:

Key

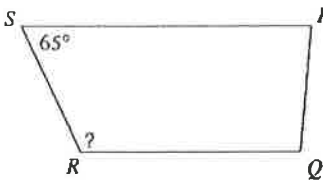
Date:

Hour:

Advanced Geometry
WS PC #3 Review (7.4 - 7.5)

1. Given SPQR is a trapezoid, find $m\angle R$.

$$180 - 65$$
$$m\angle R = 115^\circ$$

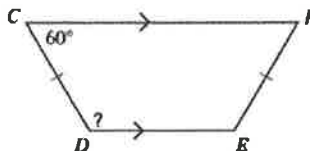


2. Find each measure.

$$m\angle F = 60$$

$$m\angle D = 120$$

$$m\angle E = 120$$

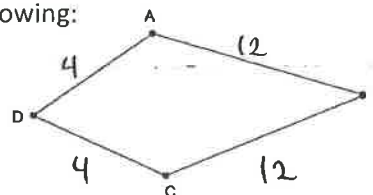


3. Polygon ABCD is a kite. If $AB = 12$ and $AD = 4$, find the following:

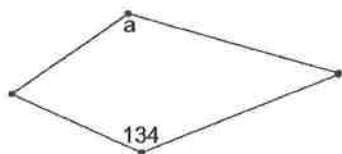
$$BC = 12$$

$$DC = 4$$

$$\text{Perimeter of } ABCD = 8 + 24 = 32 \text{ units}$$

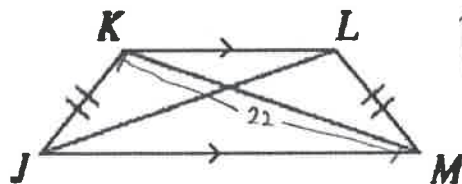


4. The figure below is a kite. Find a .



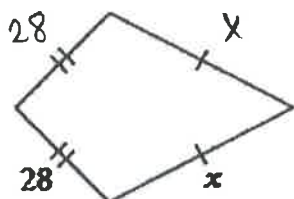
$$a = 134^\circ$$

5. If $KM = 22$, find JL .



$$JL = 22$$

6. The perimeter of the kite is 116 cm. Find x .

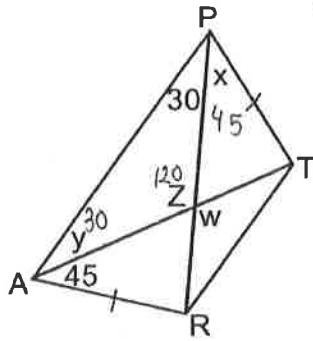


$$2x + 56 = 116$$

$$2x = 60$$

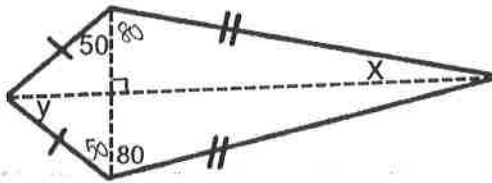
$$x = 30$$

7. $ARTP$ is an isosceles trapezoid with $RA = PT$. Find w , x , and y .



$$\begin{aligned} W &= 120 \\ X &= 45 \\ Y &= 30 \end{aligned}$$

8. Find x and y .



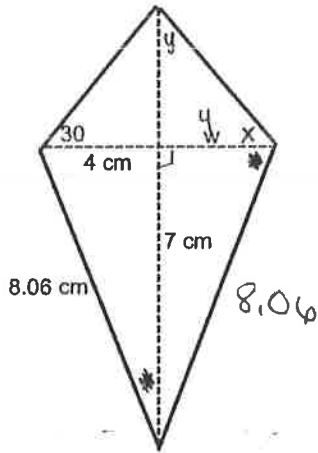
$$90 - 80 = 10$$

$$X = 10$$

$$90 - 50 = 40$$

$$Y = 40$$

9. $FLYE$ is a kite and $FL = LY$. Find w , x , and y .



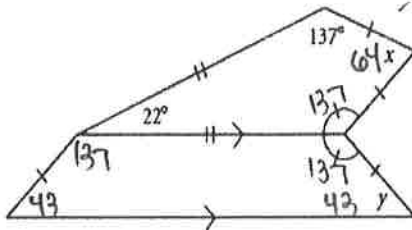
$$W = 4 \text{ cm}$$

$$X = 30^\circ$$

$$Y = 40^\circ$$

$$90 - 30 = 60$$

10. Find x and y .



$$X = 64^\circ$$

$$Y = 43^\circ$$

11. Complete the following chart by putting checks in the boxes that are true.

| | 4 Sides | Opp. Sides | Opp. Sides = | All Sides = | Opp. Angles = | All Angles = |
|------------------|---------|------------|--------------|-------------|---------------|--------------|
| 1. Parallelogram | X | X | X | | X | |
| 2. Rectangle | X | X | X | | X | X |
| 3. Rhombus | X | X | X | X | X | |
| 4. Square | X | X | X | X | X | X |

| The diagonals ... | bisect each other | are congruent | bisect opposite angles | are perpendicular |
|-------------------|-------------------|---------------|------------------------|-------------------|
| 5. Parallelogram | X | | | |
| 6. Rectangle | X | X | | |
| 7. Rhombus | X | | X | X |
| 8. Square | X | X | X | X |

Determine if the statement is true or false.

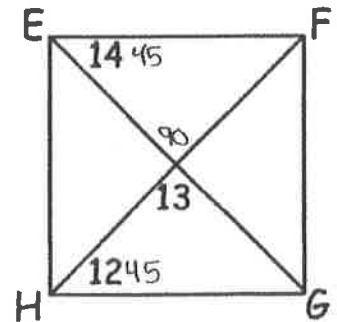
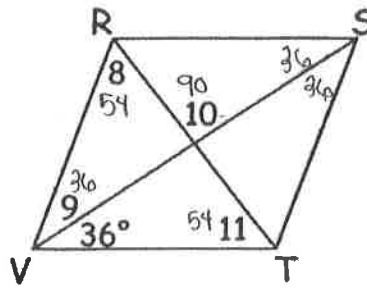
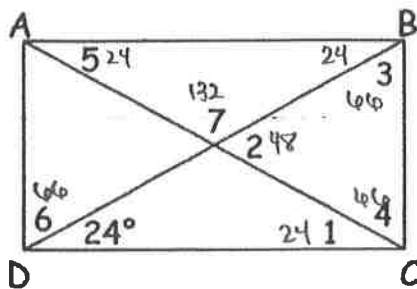
12. F All quadrilaterals are parallelograms.
13. T All parallelograms are quadrilaterals.
14. T A square is a parallelogram.
15. F A parallelogram with a right angle is a square.
16. T All rectangles are parallelograms.
17. F All rhombuses are squares.
18. T All squares are rectangles.
19. F A parallelogram with four congruent sides is a square.
20. F A parallelogram with perpendicular diagonals is a square.

For 21 – 23, find the measure of the numbers angles in the figures.

21. ABCD is a rectangle

22. RSTV is a rhombus

23. EFGH is a square



$m\angle 1 = 24$ $m\angle 2 = 48$ $m\angle 3 = 66$ $m\angle 4 = 66$

$m\angle 5 = 24$ $m\angle 6 = 66$ $m\angle 7 = 132$ $m\angle 8 = 54$

$m\angle 9 = 36$ $m\angle 10 = 90$ $m\angle 11 = 54$ $m\angle 12 = 45$

$m\angle 13 = 90$ $m\angle 14 = 45$

