

Name: _____

Date: _____

Quiz 6.5-6.7 Review

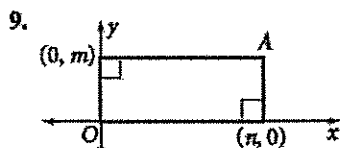
Distance Formula:

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

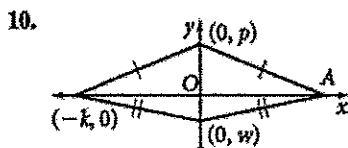
Midpoint Formula:

$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

Give the coordinates for point A without using any new variables.



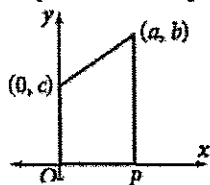
(n, m)



$(k, 0)$

Give the coordinates for point P without using any new variables.

24. trapezoid with a right \angle

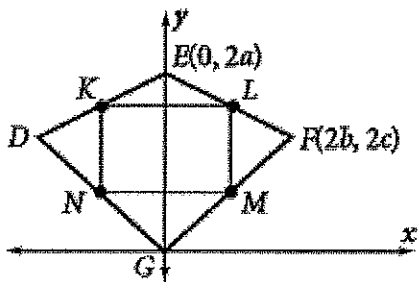


$(a, 0)$

Prove the midpoints KLMN of the kite EFGD form a rectangle.

Given: DE is congruent to EF and DG is congruent to GF.

Prove KLMN forms a rectangle.



Slopes

$$KL = 0$$

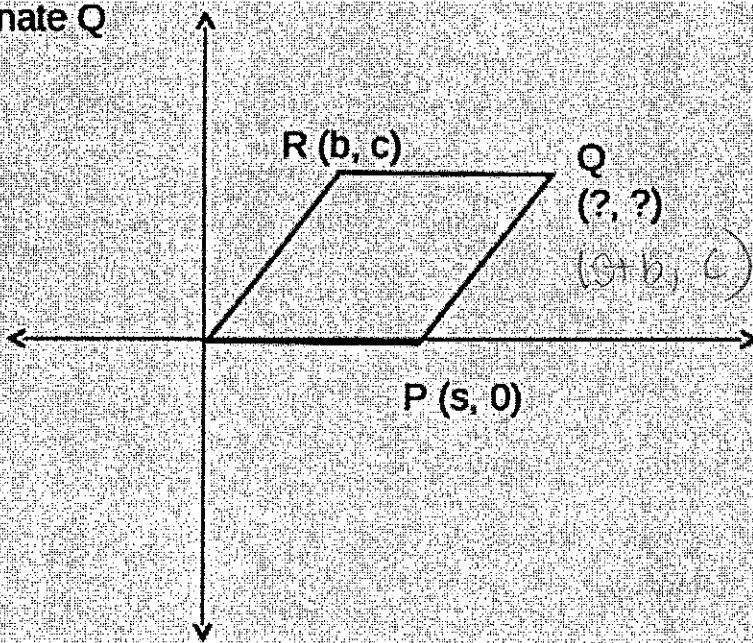
$$LM = \text{undefined}$$

$$NM = 0$$

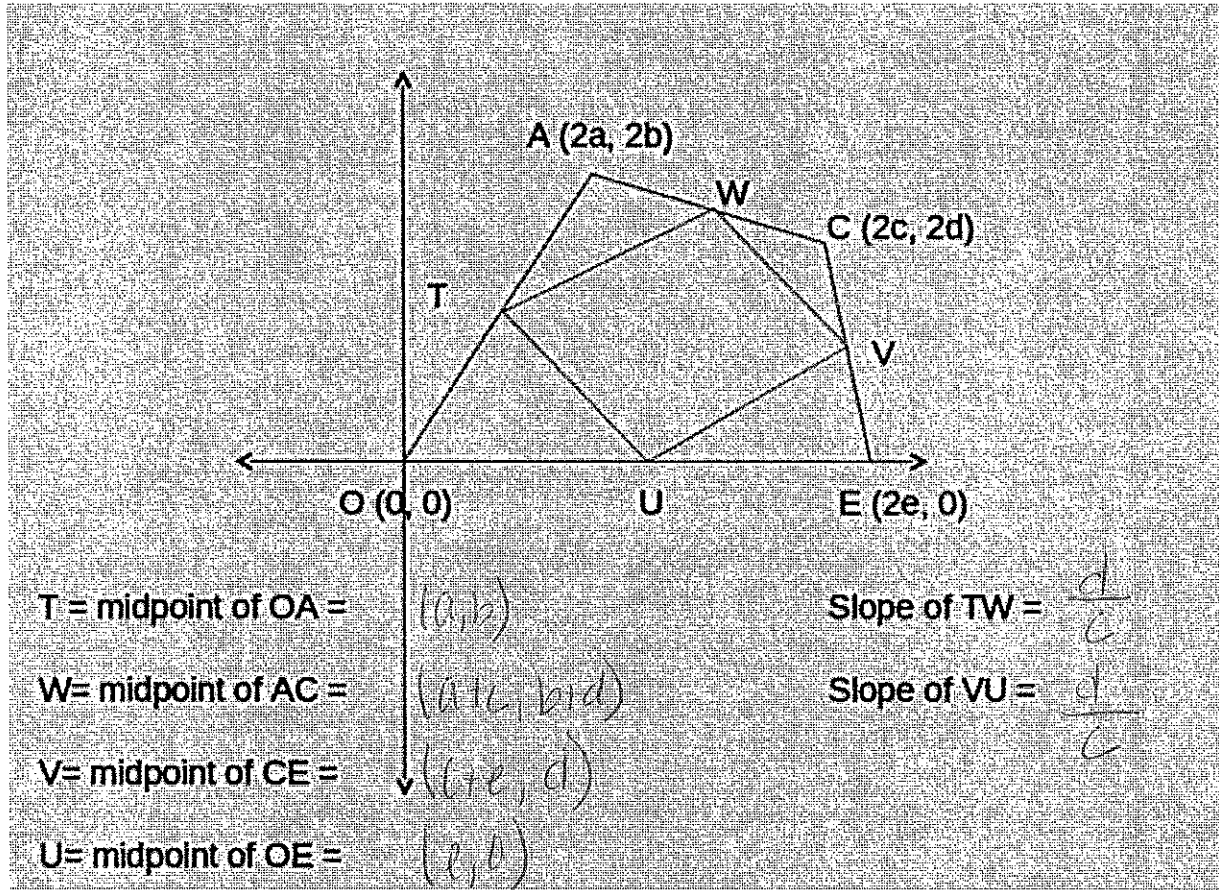
$$KN = \text{undefined}$$

Slopes are opposite reciprocals, therefore forming 90° \angle s.
KLMN is a Rectangle

Find coordinate Q

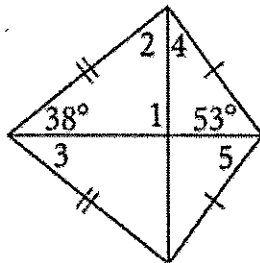


Calculate each part.

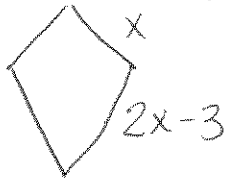


Find the unknown angles:

- $\angle 1 = 90$
- $\angle 2 = 52$
- $\angle 3 = 38$
- $\angle 4 = 37$
- $\angle 5 = 53$

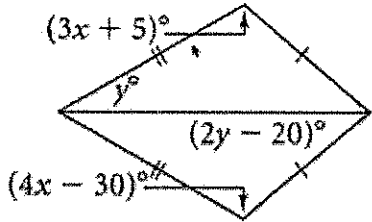


3. The perimeter of a kite is sixty-six cm. The length of one of its sides is 3 cm less than twice of another. Draw a picture and find the length of each side of the kite.



Sides = 12, 12, 21, 21

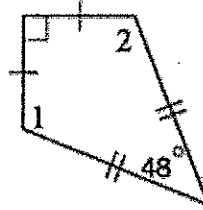
Solve for x and y:



$x = 35$

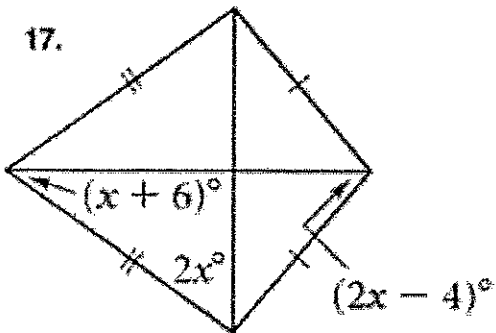
$y = 30$

Find $m\angle 1$ and $m\angle 2$. *Hint: All angles add up to 360°



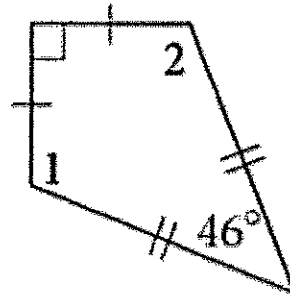
$m\angle 1 = 111$ $m\angle 2 = 111$

17.



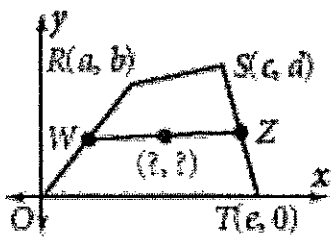
$x = 20$

20.

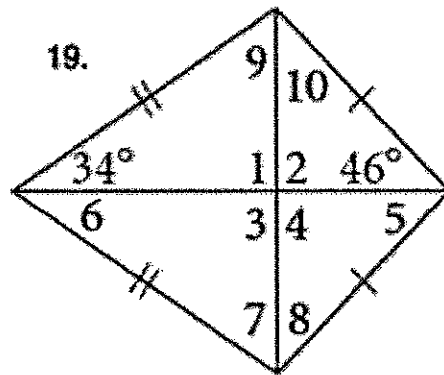


$m\angle 1 = 112$ $m\angle 2 = 112$

Find the midpoint of the midsegment.



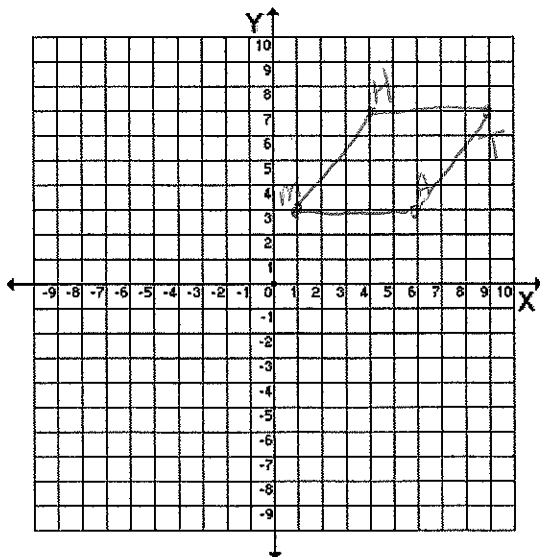
$$\left(\frac{a+c+e}{4}, \frac{b+d}{4} \right)$$



- $m \angle 1 = 90$
- $m \angle 2 = 90$
- $m \angle 3 = 90$
- $m \angle 4 = 90$
- $m \angle 5 = 40$
- $m \angle 6 = 34$
- $m \angle 7 = 56$
- $m \angle 8 = 44$
- $m \angle 9 = 50$
- $m \angle 10 = 44$

Graph the figure and decide the most precise name. Then PROVE it!!

$M(1,3), A(6,3), T(9,7), H(4,7)$



Distances

$$HT = 5$$

$$MA = 5$$

$$MH = 5$$

$$TA = 5$$

Slopes

$$HT = 0$$

$$MA = 0$$

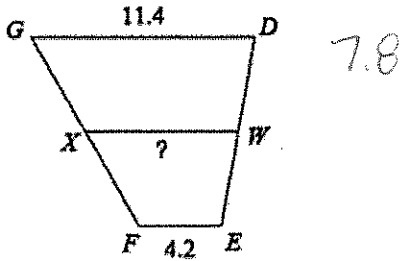
$$HM = \frac{4}{3}$$

$$AT = \frac{4}{3}$$

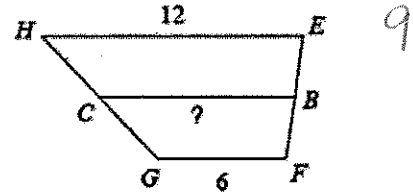
Since there are 2 pair of opposite sides parallel & all the sides are equal, MATH is a Rhombus

Find the length of the midsegment of each trapezoid.

1)

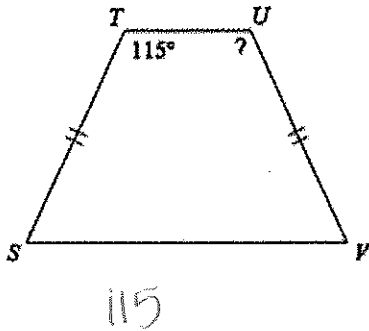


2)

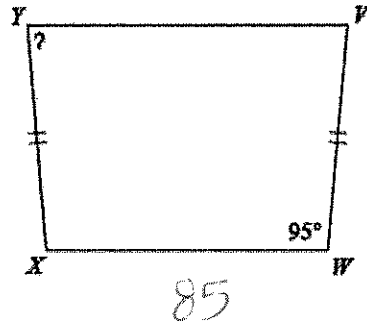


Find the measurement of the angle indicated for each trapezoid.

3)



4)



4. What is the length of a midsegment of a trapezoid with bases of length 400 and 700?

550