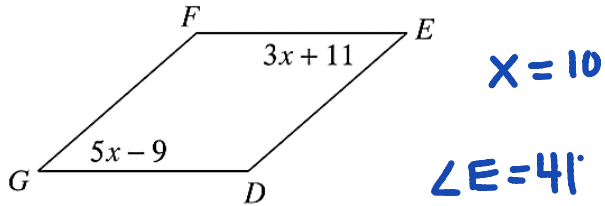
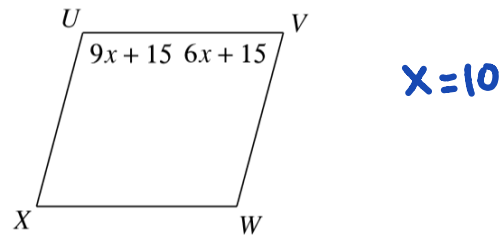


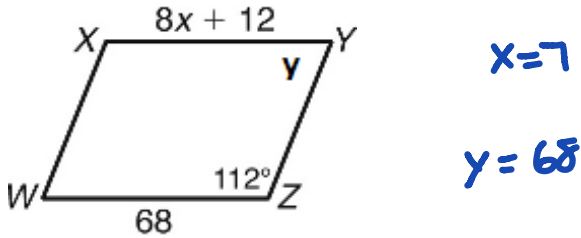
1. Find the measure of Angle E.



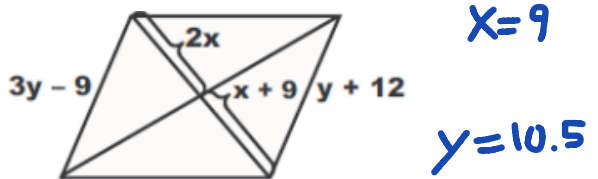
2. Find the measure of angle V.



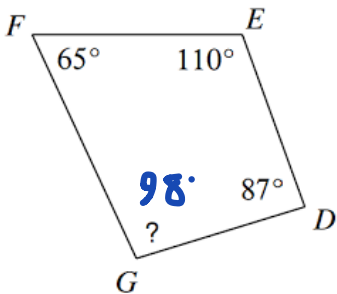
3. Find the values of x and y.



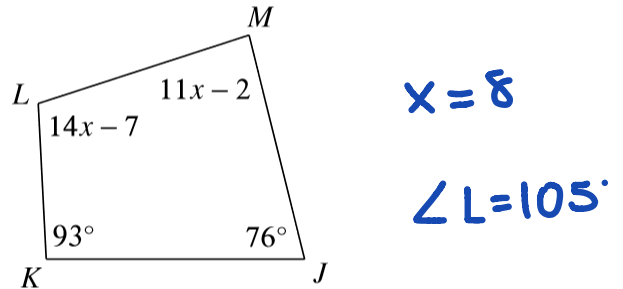
4. Find the values of x and y.



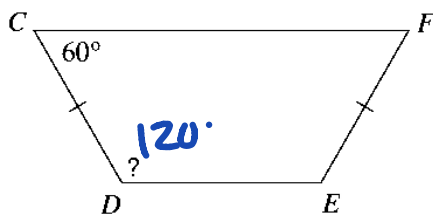
5. Find $m\angle G$.



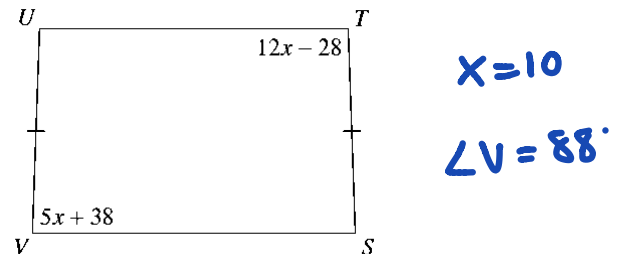
6. Find $m\angle L$.



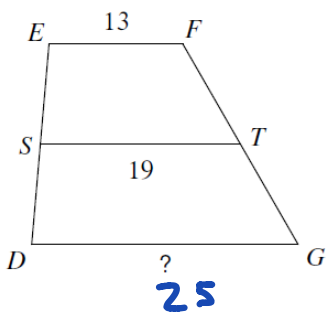
7. Find $m\angle D$.



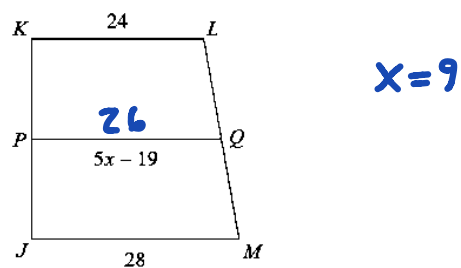
8. Find $m\angle V$.



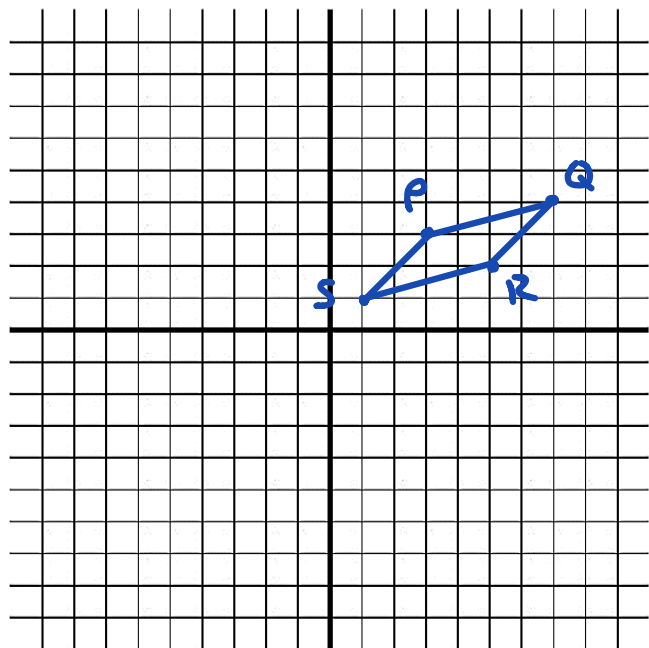
9. Find \overline{DG} .



10. Find x.

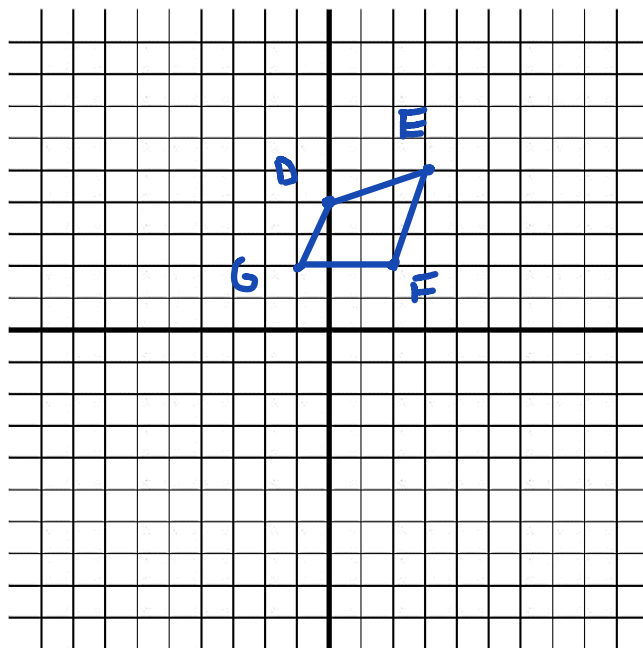


11. Determine whether the four vertices form a parallelogram: $P(3,3), Q(7,4), R(5,2), S(1,1)$.



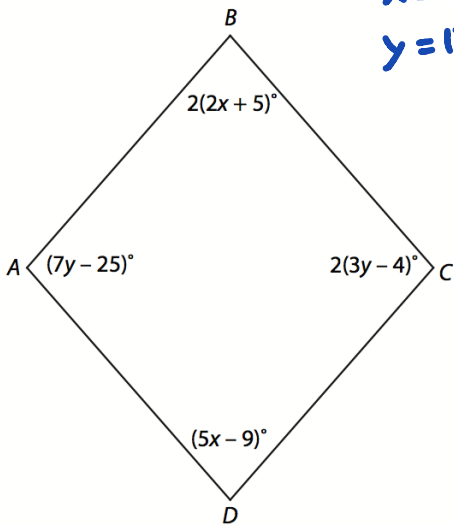
Square

12. Determine whether the four vertices form a parallelogram: $D(0,4), E(3,5), F(2,2), G(-1,2)$.



No, opposite slopes aren't congruent

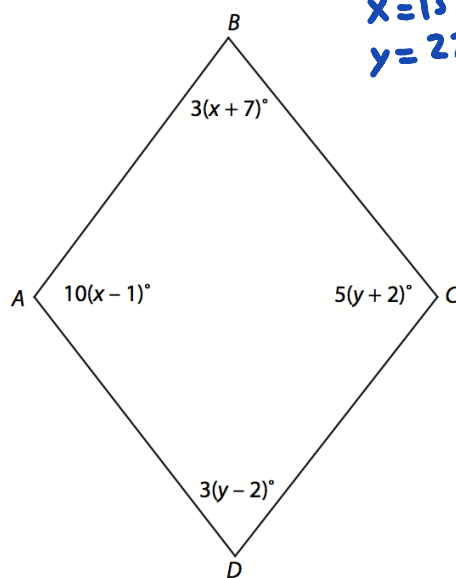
13. Find the values of x and y if the quadrilateral ABCD is a parallelogram.



$$x = 19$$

$$y = 17$$

14. Find the values of x and y if the quadrilateral ABCD is a parallelogram.



$$x = 13$$

$$y = 22$$

15. If the diagonals of a given quadrilateral are perpendicular, how could the quadrilateral be classified (Kite, rhombus, square, All the above)?

16. If the diagonals of a given quadrilateral are congruent, the quadrilateral could be classified as all the following EXCEPT: (isosceles triangle, kite, rectangle, square)

17. Classify the quadrilateral BEAR where:

Slope $\overline{BE} = \frac{1}{2}$ Length of $\overline{BE} = \sqrt{15}$

Slope $\overline{EA} = -2$ Length of $\overline{EA} = \sqrt{15}$

Slope $\overline{AR} = \frac{1}{2}$ Length of $\overline{AR} = \sqrt{15}$

Slope $\overline{BR} = -2$ Length of $\overline{BR} = \sqrt{15}$

Square

18. Classify the quadrilateral OHMY where:

Slope $\overline{OH} = -\frac{2}{3}$ Length of $\overline{OH} = 2\sqrt{7}$

Slope $\overline{HM} = \frac{1}{3}$ Length of $\overline{HM} = \sqrt{7}$

Slope $\overline{MY} = -\frac{2}{3}$ Length of $\overline{MY} = 2\sqrt{7}$

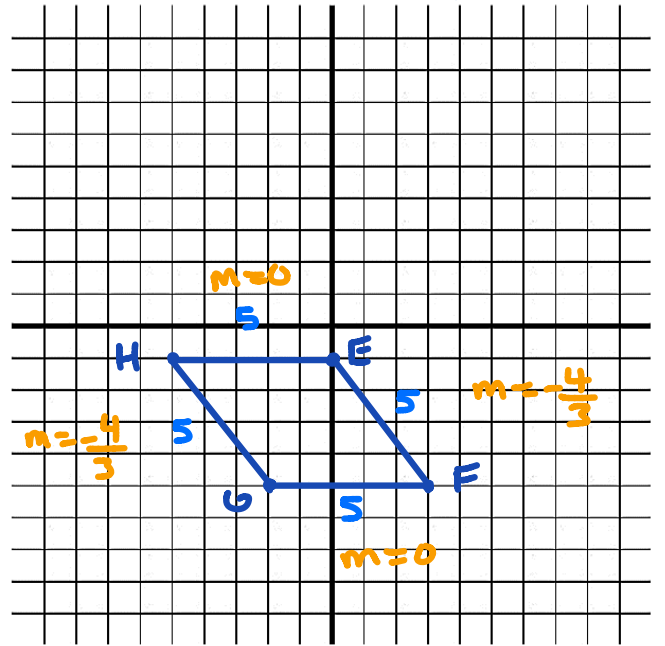
Slope $\overline{OY} = \frac{1}{3}$ Length of $\overline{OY} = \sqrt{7}$

Parallelogram

19. Classify a quadrilateral as precisely as possible given four vertices:

$E(0, -1), F(3, -5), G(-2, -5),$ and $H(-5, -1)$

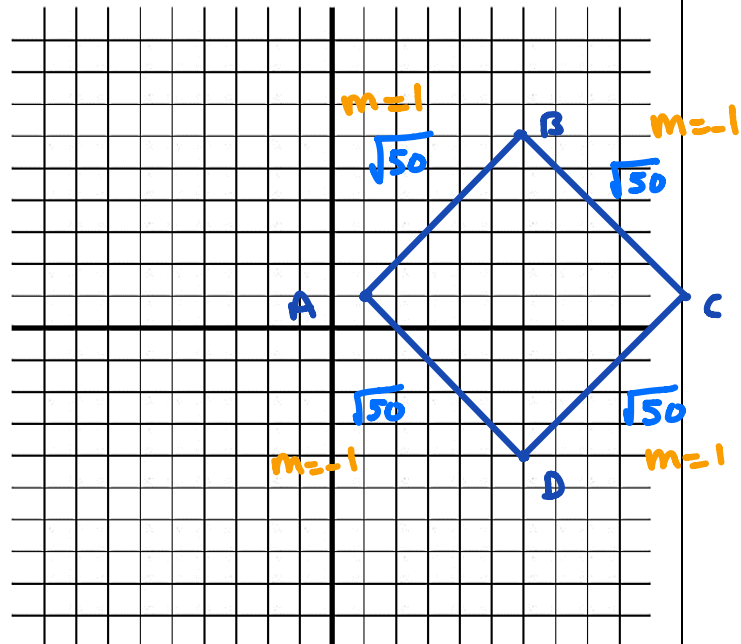
Rhombus



20. Classify a quadrilateral as precisely as possible given four vertices:

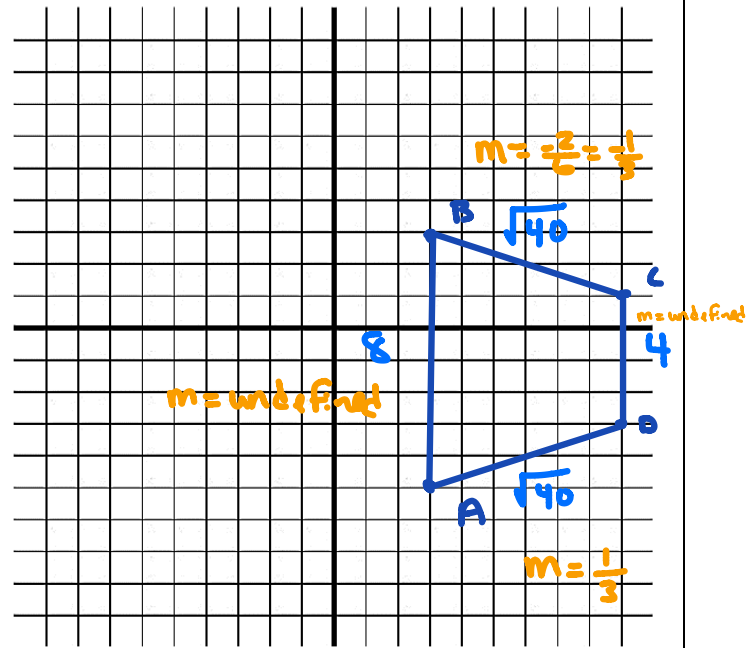
$A(1,1), B(6,6), C(11,1),$ and $D(6,-4)$.

Square

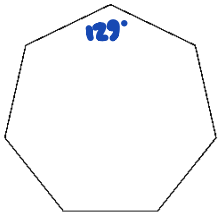


21. Classify a quadrilateral as precisely as possible given four vertices:

$A(3, -5)$, $B(3, 3)$, $C(9, 1)$, and $D(9, -3)$.

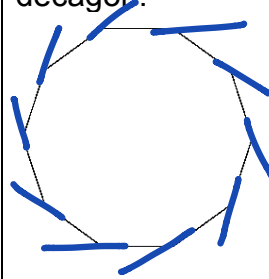


22. Find the sum of interior angles, then find one interior angle of the regular heptagon.



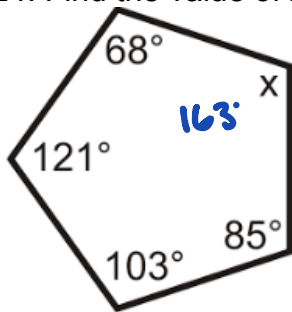
$$\text{sum} = 900^\circ$$

23. Find one exterior angle of the regular decagon.

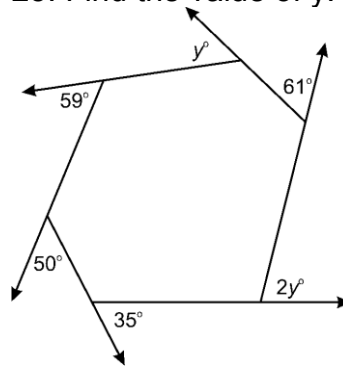


$$\frac{360}{10} = \boxed{36}$$

24. Find the value of x .



25. Find the value of y .



$$3y + 205 = 360$$

$$\boxed{y = 51.6}$$