6.1 Homework Page 398-399 #2-13 ALL, 29, 35, 39

Tell whether each outlined shape is a polygon. If it is a polygon, name it by the number of its sides.

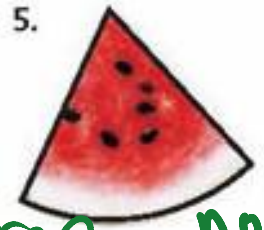
2. yes, decagon

3. 

no

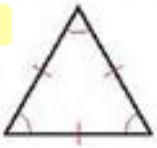
4. 

yes, quadrilateral

5. 

no

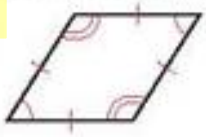
Tell whether each polygon is regular or irregular. Tell whether it is concave or convex.

6. 

regular, convex

7. 

irregular concave

8. 

irregular, convex

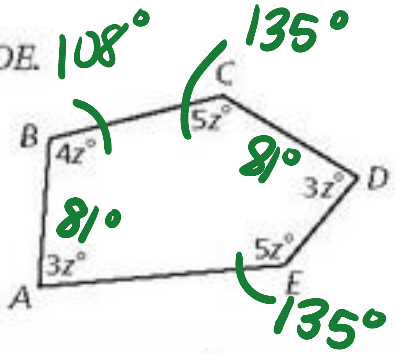
9. Find the measure of each interior angle of pentagon *ABCDE*.

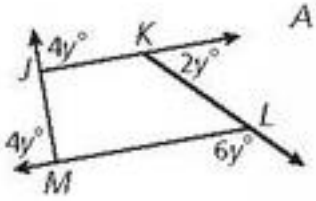
10. Find the measure of each interior angle of a regular dodecagon.

11. Find the sum of the interior angle measures of a convex 20-gon.

12. Find the value of *y* in polygon *JKLM*.

13. Find the measure of each exterior angle of a regular pentagon.





9) $4z+3z+5z+5z+3z=540$

10) $E=\frac{360}{12}=30$ Int $\angle=180-30=\boxed{150^\circ}$

11) $S_I=(20-2)\cdot180$

$\boxed{=3,240^\circ}$

12) $4y+4y+2y+6y=360$

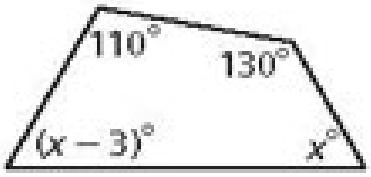
$16y=360$

$\boxed{y=22.5}$

13) $\frac{360}{5}=\boxed{72^\circ}$

Algebra Find the value of x i

29.



$x-3+x+130+110=360$

$x=61.5$

$n=4$

$S_I=360$

Name the convex polygon whose interior angle measures have each given sum.

35. 540° 36. 900° 37. 1800° 38. 2520°

$540=(n-2)180$

$3=n-2$

$5=n$

Pentagon

Multi-Step An exterior angle measure of a regular polygon is given. Find the number of its sides and the measure of each interior angle.

39. 120° 40. 72° 41. 36° 42. 24°

$180-120=60°$

$n=\frac{360}{120}$

$n=3$