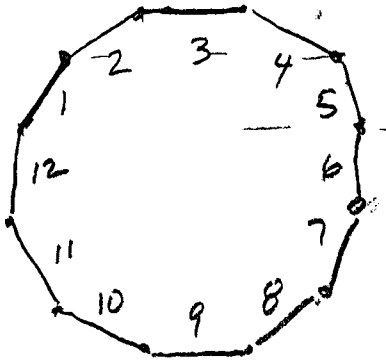
Geometry Weds. 2-27-13 Class Notes

(33)



Find the interior Angle Sum.

$S = (N-2)\,180$

$= (12-2)\,180$

$= 10(180)$

$= \boxed{1800 \text{ degrees}}$

(&) How big is (ea) Angle, assuming A regular dodecagon.

$$\frac{1800}{12} = \frac{900}{6} = \frac{450}{3} = \boxed{150 \text{ deg.}}$$

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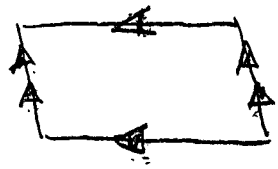
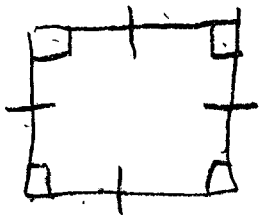
(35)



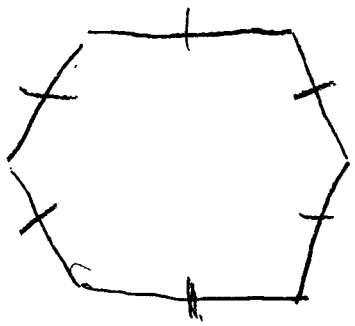
QUADRILATERAL
PARALLELOGRAM

(36)

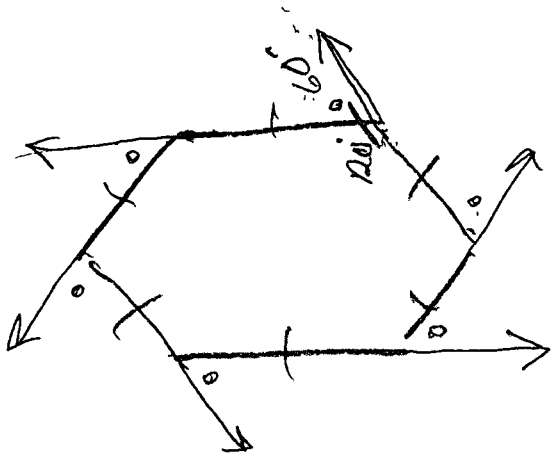


QUADRILATERAL
PARALLELOGRAM
RHOMBUS
RECTANGLE
SQUARE

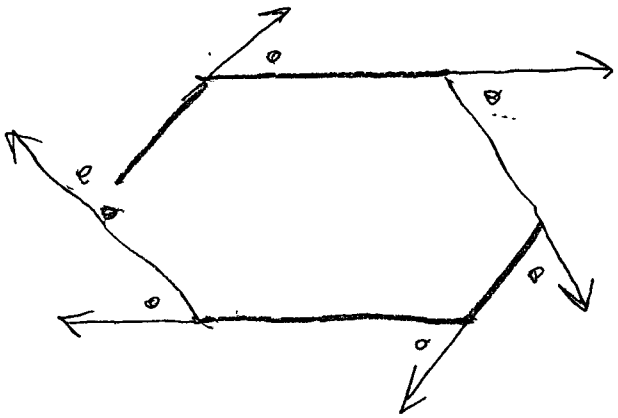
(32) Measure of one exterior Angle.



$$\frac{360}{6} = \boxed{60^\circ}$$

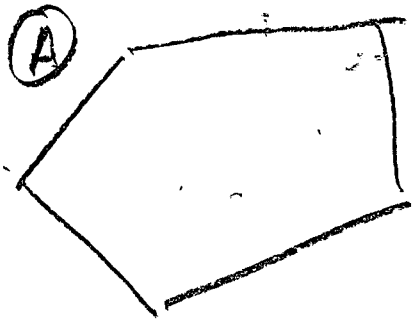


6 exterior Angles



Ex

A



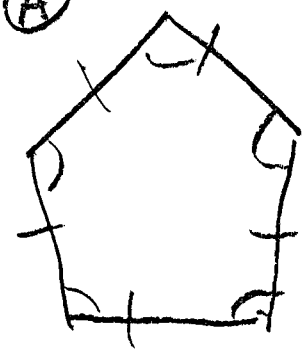
CONVEX

B

CONCAVE

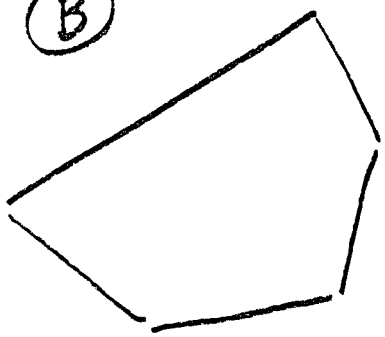
Ex

A



Regular

B



NOT Regular
(irregular)

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① $(x-13)^2 + (y-7)^2 = 16$

$C(13, 7),\ r = 4$

h, k

(Ex) $2\sqrt{3} \Rightarrow (2\sqrt{3})^2$

$(4 \cdot 3) = 12$

(Ex) $(6\sqrt{5})^2 = 36 \cdot 5 = \boxed{180}$

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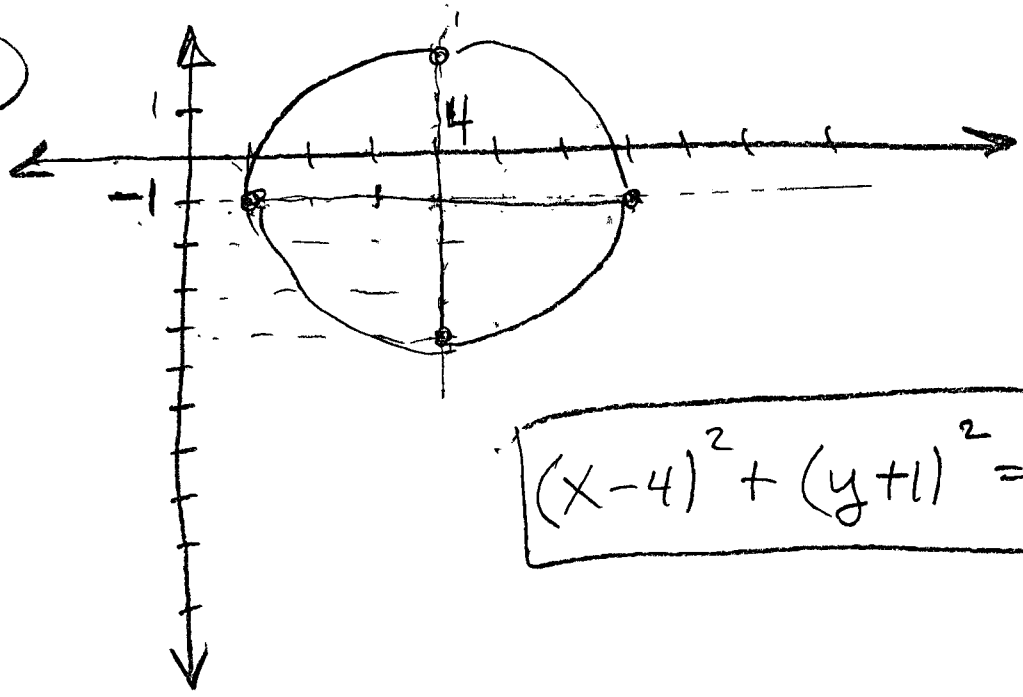
(6) $C(-7, 2)$, $\sqrt{133} = r$

h k

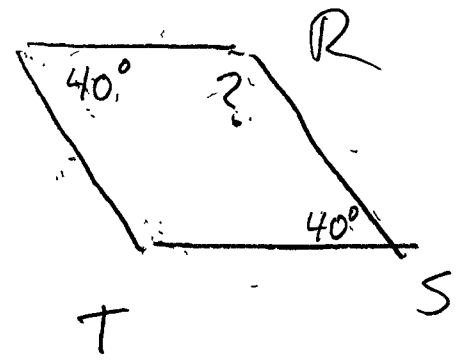
$\boxed{(x+7)^2 + (y-2)^2 = 133}$

(11)



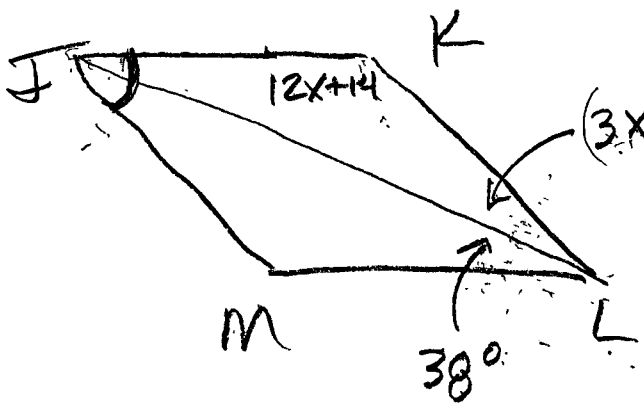
$\boxed{(x-4)^2 + (y+1)^2 = 9}$

(43) Parallelogram



$m\angle R = 140°$

(49)



$m\angle KJM = ?$

$(3x+8) + 38 + (12x+14) = 180$

$15x + 60 = 180$

$-60 \quad -60$

$\frac{15x}{15} = \frac{120}{15} = \frac{24}{3}$

$x = 8$

$m\angle L = 3(8)+8+38 = 70$

$\therefore m\angle KJM = 70°$ ✓

Eq. of circle

(9) C(+5, 4) Point on Circle: (-7, 9)

h, k

$r^2 = (-7+5)^2 + (9-4)^2$

$r^2 = (-2)^2 + (5)^2$

$r^2 = 4 + 25 = 29$

$\therefore \boxed{(x+5)^2 + (y-4)^2 = 29}$