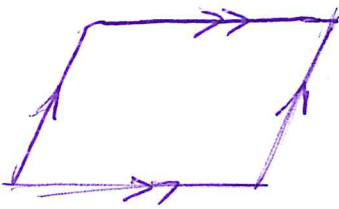


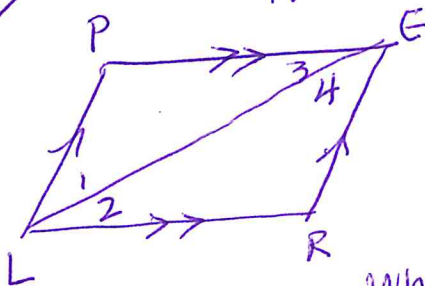
Parallelogram Definition



A _____ that

Parallelogram Properties

Prove: \rightarrow Opposite sides of a parallelogram are congruent.
 \rightarrow Opposite angles of a parallelogram are congruent.

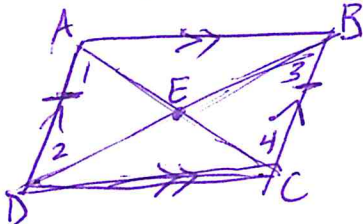


Given: parallelogram PRL with diagonal \overline{LE} , $\overline{PE} \parallel \overline{RL}$, $\overline{PL} \parallel \overline{RE}$
 Show: $\overline{PL} \cong \overline{RE}$, $\overline{PE} \cong \overline{RL}$, $\angle P \cong \angle R$, $\angle PLR \cong \angle REP$

What	Why
①?	Given
② $\angle 1 \cong \angle 4$ $\angle 2 \cong \angle 3$?
③?	Reflexive Property (same side)
④?	ASA Post.
⑤ $\overline{PL} \cong \overline{RE}$ $\overline{PE} \cong \overline{RL}$?
⑥ $\angle P \cong \angle R$?
⑦ $\angle 1 + \angle 2 = \angle PLR$, $\angle 3 + \angle 4 = \angle REP$? see p 672
⑧ $\angle 1 + \angle 2 \cong \angle 3 + \angle 4$? see p 670
⑨?	Substitution Property

Therefore

The diagonals of //ogram _____ each other.



Is $\triangle AED \cong \triangle CEB$? Why?

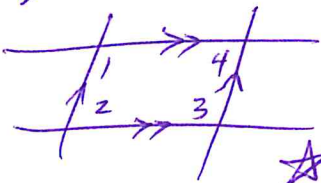
Therefore, is $\overline{AE} \cong \overline{CE}$? is $\overline{DE} \cong \overline{BE}$?

Is E the midpoint of both diagonals? Does \overline{AC} bisect \overline{BD} ?

Are $\angle 1$ & $\angle 2$ consecutive interior \angle 's? $\angle 2$ & $\angle 3$?

Does $\angle 1 + \angle 2 = 180^\circ$? Does $\angle 2 + \angle 3 = 180^\circ$?

★ Consecutive angles of a parallelogram are _____.



HW#15a

p 269

1

1) perimeter = 64 cm

(def of kite - $20 \cdot 2 + 12 \cdot 2$)

2) $y = 146^\circ$ (non-vertex angles congruent)

$146 \cdot 2 = 292 + 47 = 339$ $360 - 339 = 21^\circ = x$

3) $y = 128^\circ$ $x = 52^\circ$ (base L's are \Rightarrow)
(consecutive bet bases = 180°)

4) $x = 15 \text{ cm}$ (def of isos. trapezoid)

5) $x = 180 - 90 - 18 = 72^\circ$ (diagonals are \perp , vertex L bisected)

$y = 180 - 90 - 29 = 61^\circ$

6) $x = 180 - 81 = 99^\circ$

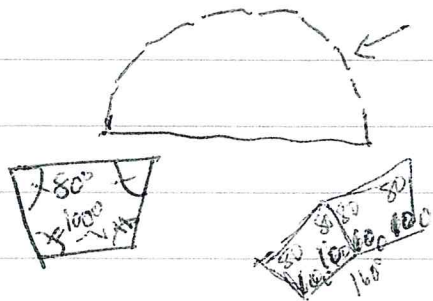
$y + y + 12 + y + 12 + y - 12 = 164$

$4y + 12 = 164$

$4y = 152$

$y = 38$

15) You DID NOT HAVE TO DO AN ACCURATE DRAWING - my bad.



9 sides $\cdot 2 = 18$
this is an 18-gon.
One angle = $\frac{180(18-2)}{18}$
 $= 160^\circ$