

(5-3 HW) p180-181 / #1-20 Chap: Quadrilaterals - Day 3 HW

① $AB=12$, $EF=12$

② $CD=2k$, $EF=k$

③ $5x-8=3x$

$2x=8$

$x=4$

④ $2(3x+2)=8x$

$6x+4=8x$

$4=2x$

$2=x$

5a) $\triangle TKO = 40$

b) $\triangle LMK = 20$

c) $\square TNML = 26$

d) $\angle NOK = 34$

6a) $\triangle NOM$, $\triangle LMK$

b) 69.28 sq. cm

7) D, E

8) $D, E,$

9) D, F

10) $AD=15$

11) $CD=6$

12) $x=4$

13) $x=11$

14) $x=10, y=5$

15) $x=3, y=2$

16) $3x+5 = \frac{1}{2}(12x-8)$

$4y+2 = 7(y-1)$

$x=3$

$y=3$

17) $\frac{1}{2}(5x-3y) = 7$

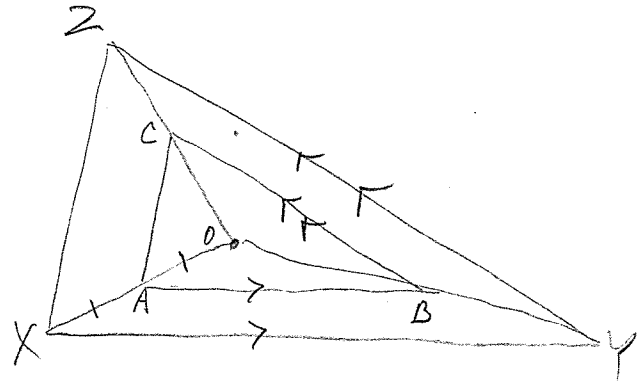
$3x-2y=8$

$x=4$

$y=2$

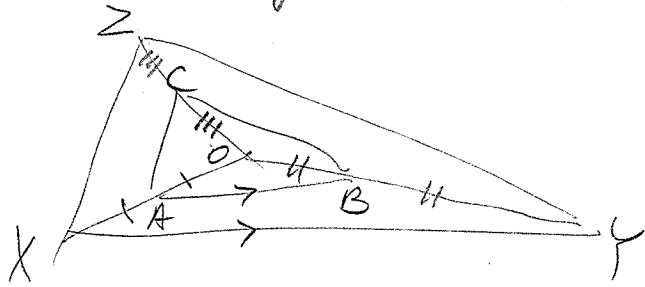
Given: A is the midpoint of \overline{OX} ;
 $\overline{AB} \parallel \overline{XY}$; $\overline{BC} \parallel \overline{YZ}$

Prove: $\overline{AC} \parallel \overline{XZ}$

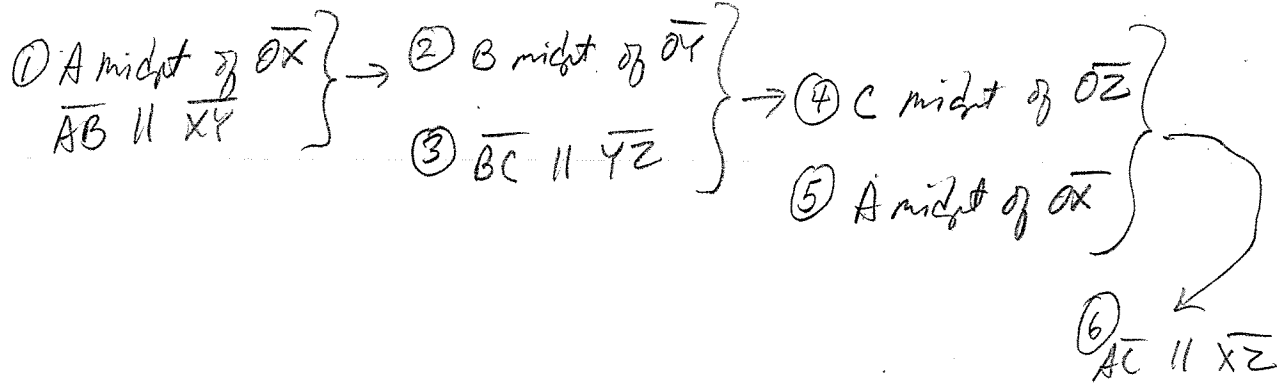


Notes:

B midpt of \overline{XY} (line that has midpt of 1 side of Δ & \parallel to 2nd side goes thru midpt of 3rd side)
 C midpt of \overline{OZ}

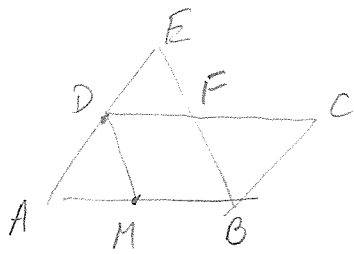


$\Rightarrow \overline{AC} \parallel \overline{XZ}$ (segment that joins 2 midpts of 2 sides of Δ is \parallel to 3rd side)



- ① Given
- ② A line that has midpt of 1 side & \parallel to 2nd side goes thru midpt of 3rd side.
- ③ Given
- ④ A line that has midpt of 1 side & \parallel to 2nd side goes thru midpt of 3rd side.
- ⑤ Given
- ⑥ A segment that joins 2 midpts of 2 sides of Δ is \parallel to 3rd side.

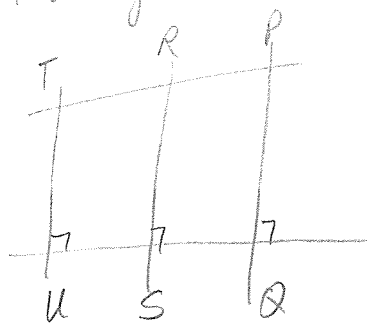
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- ① $\overline{DE} \parallel \overline{BC}$ → ② $\overline{AD} \cong \overline{BE}$
- ③ $\overline{DE} \parallel \overline{BC}$
M midpt \overline{AB} } → ④ D midpt of \overline{AE} → ⑤ $\overline{AD} \cong \overline{DE}$
- ⑥ $\overline{BC} \cong \overline{DE}$
- ⑦ $BC = DE$

- ① Given
- ② $\overline{DE} \parallel \overline{BC}$ → opp sides \cong
- ③ Given
- ④ If a line contains midpt of 1st side & \parallel to 2nd side, then goes thru midpt of 3rd side.
- ⑤ Def of midpt.
- ⑥ Transitive prop
- ⑦ Def of \cong seg.

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- ① $\overline{PQ}, \overline{RS}, \overline{TU}$ each $\perp \overline{UQ}$ → ② $\overline{PQ} \parallel \overline{RS} \parallel \overline{TU}$
- ③ R midpt \overline{PT} → ④ $\overline{TR} \cong \overline{RP}$
- ⑤ $\overline{US} \cong \overline{SQ}$

- ⑥ S midpt \overline{UQ} } → ⑧ $\overline{RS} \perp$ bisector of \overline{UQ} → ⑨ R is equidistant from U and Q.
- ⑦ $\overline{RS} \perp \overline{UQ}$

- ① Given
- ② lines \perp to same line \parallel to each other.
- ③ Given
- ④ Def. of midpt.
- ⑤ If \parallel lines cut a transversal & form \cong seg, then it will form \cong seg. on every trans.
- ⑥ Def of midpt
- ⑦ Given
- ⑧ Def of \perp bisector
- ⑨ If a pt is on \perp bisector of a seg, then it is equidistant from endpoints.