

HW: pg 157 #'s 7-27 all

7) 420 ft

9)  $\overline{WX} \cong \overline{XY} \cong \overline{YZ} \cong \overline{ZW}$  (given)

$\overline{ZY} \cong \overline{YX}$  (ref. prop)

$\triangle WXYZ \cong \triangle YZX$  (SSS)

$\angle W \cong \angle Y$  (CPCTC)

11)  $\overline{LM}$  bisects  $\angle JLK$  (given)

$\angle JLM \cong \angle KLM$  (def of  $\angle$  bis)

$\overline{JL} \cong \overline{KL}$  (given)

$\overline{LM} \cong \overline{LM}$  (ref. prop)

$\triangle JLM \cong \triangle KLM$  (SAS)

$\overline{JM} \cong \overline{KM}$  (CPCTC)

$M$  is mdpt of  $\overline{JK}$  (def of mdpt)

13)  $AB = DE = \sqrt{13}$

$BC = EF = 5$

$AC = DF = \sqrt{18} = 3\sqrt{2}$

So  $\triangle ABC \cong \triangle DEF$  by SSS

$\angle BAC \cong \angle EDF$  by CPCTC

15)  $E$  is mdpt  $\overline{AC}$  &  $\overline{BD}$  (given)

$\overline{AE} \cong \overline{CE}$ ;  $\overline{BE} \cong \overline{DE}$  (def mdpt)

$\angle AEB \cong \angle CED$  (vert  $\angle$ 's thm)

$\triangle AEB \cong \triangle CED$  (SAS)

$\angle A \cong \angle C$  (CPCTC)

$\overline{AB} \parallel \overline{CD}$  (conv of alt int  $\angle$ 's thm)

17) 14

$$\begin{aligned}
 19) \quad & \overline{PS} = \overline{RQ} \quad (\text{given}) \\
 & \overline{PS} \cong \overline{RQ} \quad (\text{def of } \cong \text{ seg}) \\
 & m\angle 1 = m\angle 4 \quad (\text{given}) \\
 & \angle 1 \cong \angle 4 \quad (\text{def of } \cong \angle \text{'s}) \\
 & \overline{SQ} \cong \overline{QS} \quad (\text{reflex prop}) \\
 & \triangle PSQ \cong \triangle RQS \quad (\text{SAS}) \\
 & \angle 3 \cong \angle 2 \quad (\text{CPCTC}) \\
 & m\angle 3 = m\angle 2 \quad (\text{def of } \cong \angle \text{'s})
 \end{aligned}$$

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$$25) \quad G$$

$$27) \quad G$$