

Lesson 4.6

Homework Answers

p. 219 #1-11 odd, 14-17, 19, 20, 28, 31, 35-46

1) $\triangle ABC \cong \triangle DEF$ by HL.
Both \triangle 's are rt. \triangle 's, $\overline{AC} \cong \overline{DF}$
and $\overline{CB} \cong \overline{FE}$.

3) $\triangle LMP \cong \triangle OMN$ by HL.
Both \triangle 's are rt. \triangle 's because vert.
 \angle 's \cong ; $\overline{LP} \cong \overline{NO}$ and $\overline{LM} \cong \overline{OM}$.

5) $\angle T$ and $\angle Q$ are rt. \angle 's

7) $\overline{TY} \cong \overline{ER}$ or $\overline{RT} \cong \overline{YE}$

9) $\overline{BC} \cong \overline{FA}$

11) a) Given
b) Defn. of rt. \triangle
c) Reflexive POC
d) Given
e) HL

14) Yes; $\overline{RS} \cong \overline{TU}$ and $\overline{RT} \cong \overline{TV}$

15) Yes; $\overline{PM} \cong \overline{PM}$ and $\angle PMW$ is a
rt. \angle since $\overline{JP} \parallel \overline{MW}$

16) a) Given
b) Defn. of \perp
c) $\triangle MLJ$ and $\triangle KJL$ are rt. \triangle 's
d) Given
e) $\overline{LJ} \cong \overline{LJ}$
f) HL

17) a) Given
b) $\triangle IGH$
c) Defn. of rt. \triangle 's
d) I is the midpoint of \overline{HV}
e) Defn. of midpoint
f) $\triangle IGH \cong \triangle ITV$

19) $x = 3; y = 2$

20) $x = -1; y = 3$

28) $\overline{EB} \cong \overline{DB}$ (Given)
 $\angle A$ & $\angle C$ are rt. \angle 's (Given)
 $\triangle BEA$ & $\triangle BDC$ are rt. \triangle 's (Defn. of rt. \triangle)
 B is midpt. of \overline{AC} (Given)
 $\overline{AB} \cong \overline{BC}$ (Defn. of midpt.)
 $\triangle BEA \cong \triangle BDC$ (HL)

31) a) D(-6,-2), E(-1,-1)
F(-2,-6), G(-4,-4)

Slope of:

b) $\overline{DG} = -1$

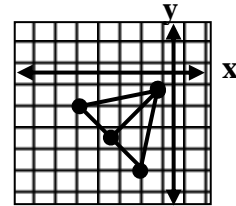
$\overline{GF} = -1$

$\overline{GE} = 1$

c) $\angle EGD$ & $\angle EGF$ are rt. \angle 's

d) $DE = \sqrt{26}; FE = \sqrt{26}$

e) $\triangle EGD \cong \triangle EGF$ by HL. Both \triangle 's are
rt. \triangle 's, $\overline{DE} \cong \overline{FE}$, and $\overline{EG} \cong \overline{EG}$.



35) A

36) H

37) D

38) a) $\triangle TFW \cong \triangle TGW$

b) $\angle RFW$ & $\angle RGW$ are rt. \angle 's

39) isosceles

40) equilateral

41) $\overline{BC} \parallel \overline{AD}$ because slope = -1

$\overline{BC} \perp \overline{BA}, \overline{BA} \perp \overline{AD}$ product slopes = -1

42) If \parallel lines then alt. int. \angle 's \cong

43) If \parallel lines then same-side int. \angle 's are suppl.

44) Vert \angle 's are \cong .

45) If \parallel lines then corr. \angle 's \cong

46) If \parallel lines then corr. \angle 's \cong