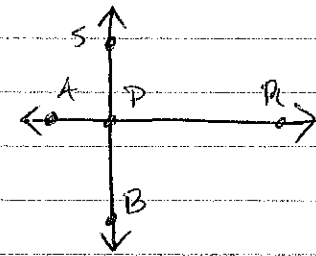
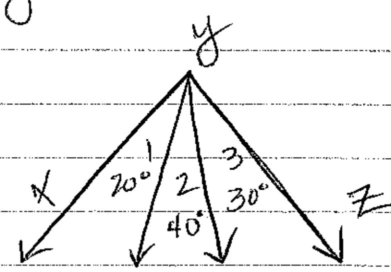
p.26

(6) Given: Diagram as shown
Prove: $\angle APR \cong \angle SPB$



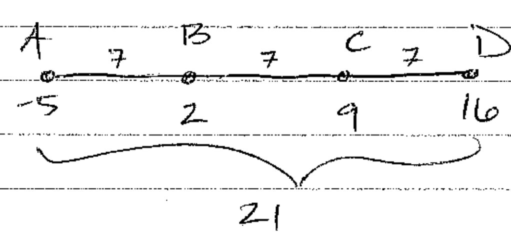
Statements	Reasons
① Diagram	① Given
② $\angle APR$ is a straight $\angle$	② Assumed from diagram
③ $\angle SPB$ is a straight $\angle$	③ Assumed from diagram
④ $\angle APR \cong \angle SPB$	④ If 2 $\angle$'s are straight $\angle$'s, then they are $\cong$

(7) Given: $\angle 1 = 20°$
$\angle 2 = 40°$
$\angle 3 = 30°$
Prove: $\angle XYZ$ is right $\angle$



Statements	Reasons
① $\angle 1 = 20°$	① Given
② $\angle 2 = 40°$	② Given
③ $\angle 3 = 30°$	③ Given
④ $\angle XYZ = 90°$	④ Addition $(20 + 40 + 30)$
⑤ $\angle XYZ$ is a rt $\angle$	⑤ Right $\angle$'s measure $90°$

p.32



5. a) $B = 2,\ C = 9$
b) $\overline{AC} = 14$

6. If M is midpoint, then:

$\overline{OM} = \overline{MP}$

$x+8 = 2x-6$

$14 = x$ → $OM = (14)+8 = 22$

$MP = 2(14)-6 = 22$

M is midpoint

7. $3x-5 = x+27$

$2x = 32$

$x = 16$ → $\angle FGJ = 3(16)-5 = 43$

9. $x+20 = 3x$

$20 = 2x$

$x = 10$ → $\angle 1 = 30$

$\angle 2 = 30$ thus yes

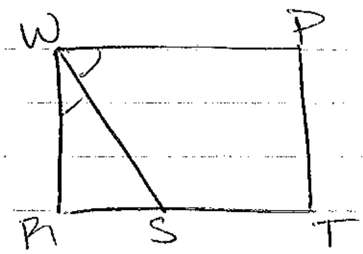
$\angle 3 = 30$

10. If a ray divides an angle into 2 ≅ angles, the ray bisects the angle

11. If a point divides a segment into 2 ≅ segments, then the point is a midpoint

12. Given: $\overrightarrow{WS}$ bisects $\angle RWP$

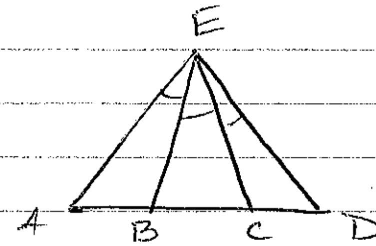
Prove: $\angle RWS \cong \angle PWS$



Statements	Reasons
① $\overrightarrow{WS}$ bisects $\angle RWP$	① Given
② $\angle RWS \cong \angle PWS$	② If a segment is a bisector, then it cuts an angle into 2 ≅ angles

14. Given: $\angle AEB = \angle BEC = \angle CED$

Prove: $\overrightarrow{EB}$ + $\overrightarrow{EC}$ trisect $\angle AED$



Statements	Reasons
① $\angle AEB = \angle BEC = \angle CED$	① Given
② $\overrightarrow{EB}$ + $\overrightarrow{EC}$ trisect $\angle AED$	② If two segments divide an angle into 3 $\cong$ $\angle$'s, then they trisect the angle.

18. $4x + 3x + 2x = 180°$

$x = 20 \longrightarrow \angle FOG = 4(20) = 80°$

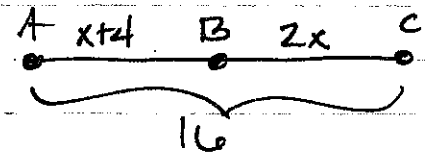
p37

4. Given: $AB = x+4$

$BC = 2x$

$AC = 16$

Prove: $\overline{AB} \cong \overline{BC}$



If $\overline{AC} = 16$, $AB = x+4$ + $BC = 2x$, then

$$x+4+2x=16$$
$$3x+4=16$$
$$3x=12$$
thus $x=4$.

If $x=4$, then $AB = 8$ + $BC = 8$.

If both AB + $BC = 8$, then $\overline{AB} \cong \overline{BC}$.

5. This cannot be proved. $\angle D$ and $\angle C$ are both obtuse but could be different measures.

6. Obtuse means $\angle 90°$. Acute means $\angle 90°$. If $\angle 1$ is obtuse + $\angle 2$ is acute, then they cannot be proven $\cong$. Cannot be proven

7. We can assume from the diagram that $\angle 1$ + $\angle 2$ together form a straight angle. Straight angles = 180°. If both angles 1 + 2 are $\cong$, they would have 2 measure 90°. And if an angle measures 90°, then it is a right angle.

9. If $\overline{CE}$ bisects $\angle BCD$, then $\angle BCE \cong \angle DCE$. If $\angle BCE = 45°$, then $\angle DCE = 45°$. If both $\angle BCE$ + $\angle DCE = 45°$, then by addition, $\angle BCD$ is a 90° angle. Because $\angle A$ is a right angle, we know it measures 90°, and since both $\angle A$ + $\angle BCD = 90°$, they must be $\cong$.

$\therefore \angle A \cong \angle BCD$.

$\boxed{\text{p. 42}}$

1. Undefined terms, postulates, definitions, theorems

2. Definitions are always reversible

3. a) yes
   b) No

4. a) theorem (not reversible)
   b) Definition (reversible)

5. a) i. If B then A
      ii. If its wet, then it rained
      iii. If an angle is acute, then it is 45°
      iv. If a point divides the segment into 2 ≅ segs., then it is the midpt of the seg.
   b) i. Not necessarily true
      ii. Not necessarily true
      iii. Not true, could be 30°
      iv. True

8. True/Correct

9. Must know what ∠C is before we assume △ABC is acute

10. Not true. Could have been a car.

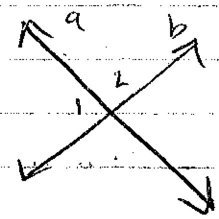
11. Not true. Could have been teased on a sunny day

12. True/correct

14. Wendy - ~~Croc~~/Monkey Katie - ~~Lizard~~/Croc Jody - Lizard/~~Monkey~~

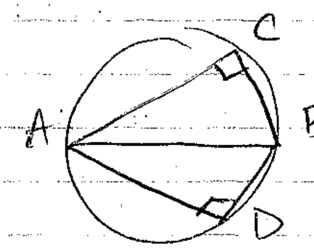
p.64

6. Given: $a \perp b$
Prove: $\angle 1 \cong \angle 2$



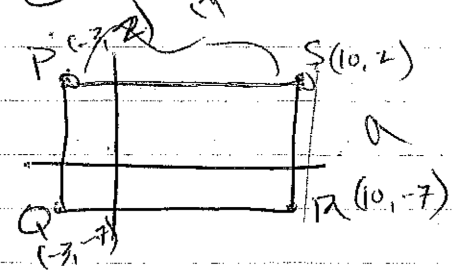
Statements	Reasons
① $a \perp b$	① Given
② $\angle 1$ is a rt $\angle$	② If 2 segs are $\perp$, then they form right $\angle$'s
③ $\angle 2$ is a rt $\angle$	③ Same as 2
④ $\angle 1 \cong \angle 2$	④ If 2 $\angle$'s are rt $\angle$'s, then they are $\cong$

7. Given: ~~$\angle$~~ $\angle ACB = 90°$
~~&~~ $\overline{AD} \perp \overline{BD}$
Prove: $\angle C \cong \angle D$

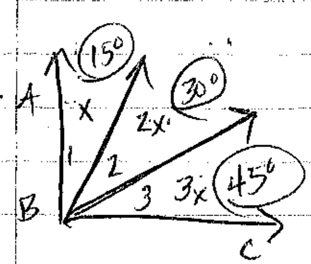


Statements	Reasons
① $\angle ACB = 90°$	① Given
② $\overline{AD} \perp \overline{BD}$	② Given
③ $\angle ADB$ is a rt $\angle$	③ If 2 lines are $\perp$, then they form rt $\angle$'s
④ ~~$\angle$~~ $\angle D = 90°$	④ All rt $\angle$'s are $90°$
⑤ $\angle C \cong \angle D$	⑤ If 2 $\angle$'s are $90°$, then they are $\cong$

10. a) P: $(-3, 2)$
b) $A = 13 \cdot 9 = 117$



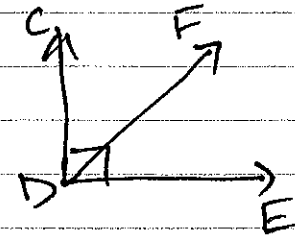
11.



$6x = 90$
$x = 15$

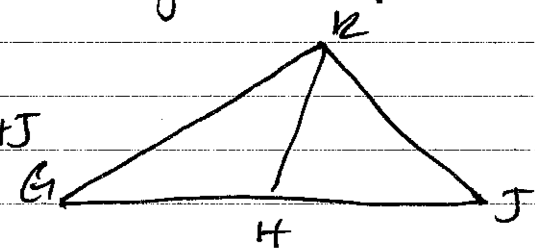
p. 69

7. Given: $\overline{CD} \perp \overline{DE}$
Prove: $\angle CDF$ is comp to $\angle FDE$



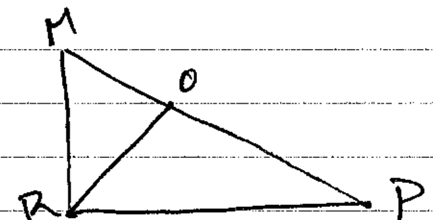
Statements	Reasons
① $\overline{CD} \perp \overline{DE}$	① Given
② $\angle CDE$ is a rt $\angle$	② Perpendicular lines form rt $\angle$'s
③ $\angle CDF$ is comp to $\angle FDE$	③ If 2 $\angle$'s form a rt $\angle$, then they are comp.

8. Given: Diagram
Prove: $\angle GHK$ is supp. to $\angle KHJ$



Statements	Reasons
① Diagram	① Given
② $\angle GHJ$ is a straight $\angle$	② Assumed from diagram
③ $\angle GHK$ is supp to $\angle KHJ$	③ If 2 $\angle$'s form a straight $\angle$ then they are supp.

9. Given: $\angle MRO$ is comp to $\angle PRO$
Prove: $\angle MRP$ is a rt $\angle$



Statements	Reasons
① $\angle MRO$ is comp to $\angle PRO$	① Given
② $\angle MRP$ is a rt $\angle$	② If 2 $\angle$'s are comp, then they form a rt $\angle$

10. $4x + 2x = 180$

$6x = 180$

$x = 30 \rightarrow \angle XVS = 60°$

11. $x + x + 70 = 180$

$2x = 110$

$x = 55 \longrightarrow x' = 125$

12. (a) $(-3, 4)$

(b) $(-3, -4)$

(c) $(0, 4)$

13. (a) then they are right ∠'s (90°)

(b) then they are 45° ∠'s

16. $11x + 7x = 180$

$18x = 180$

$x = 10 \longrightarrow 110° + 70°$

17. $x + x + y + y = 180 \longrightarrow$ B/c of a straight ∠

thus

$2x + 2y = 180$

$x + y = 90$

If $x + y = 90$, then $x + y$ are complimentary

21. $180 - x = 4(90 - x)$

$180 - x = 360 - 4x$

$3x = 180$

$x = 60 \longrightarrow 30°$

p. 79

1. (a) 49° (b) 131° (c) 49° (d) 41° (e) 139° (f) 41°

(g) 139°

2. Given: $\angle 1$ supp to $\angle 3$

$\angle 2$ supp to $\angle 3$

Prove: $\angle 1 \cong \angle 2$

Statements	Reasons
① $\angle 1$ supp to $\angle 3$	① Given
② $\angle 2$ supp to $\angle 3$	② Given
③ $\angle 1 \cong \angle 2$	③ If 2 $\angle$'s are supp to the same $\angle$, then they are $\cong$

3. Given: $\angle 4$ is comp to $\angle 6$

$\angle 5$ is comp to $\angle 6$

Prove: $\angle 4 \cong \angle 5$

Statements	Reasons
① $\angle 4$ is comp to $\angle 6$	① Given
② $\angle 5$ is comp to $\angle 6$	② Given
③ $\angle 4 \cong \angle 5$	③ If 2 $\angle$'s are comp to the same $\angle$, then they are $\cong$

4. $x + 4x = 180$

$5x = 180$

$x = 36 \rightarrow 144°$

5. $x + x + 20 = 90$

$2x = 70$

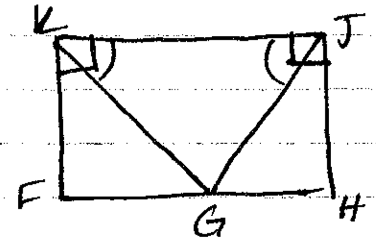
$x = 35° \rightarrow 55°$

6. $\angle 6$ is $\cong$ to $\angle 7$

7. Given: $\angle FKJ$ is a right $\angle$

$\angle HJK$ is a right $\angle$

Prove: $\angle FKG \cong \angle HJG$

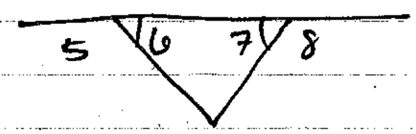


Statements	Reasons
① $\angle FKJ$ is a rt $\angle$	① Given
② $\angle HJK$ is a rt $\angle$	② Given
③ $\angle GKJ \cong \angle GJK$	③ Given
④ $\angle FKG$ comp to $\angle GKJ$	④ If 2 $\angle$'s form a rt angle, then they are comp.
⑤ $\angle HJG$ comp to $\angle KJG$	⑤ Same as 4
⑥ $\angle FKG \cong \angle HJG$	⑥ If 2 $\angle$'s are comp to $\cong$ $\angle$'s then they are $\cong$

8. Given: Diagram

$\angle 6 \cong \angle 7$

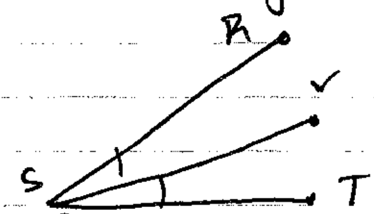
Prove: $\angle 5 \cong \angle 8$



Statements	Reasons
① Diagram	① Given
② $\angle 6 \cong \angle 7$	② Given
③ $\angle 5$ supp to $\angle 6$	③ If 2 $\angle$'s form a straight $\angle$, then they are supp.
④ $\angle 7$ is supp to $\angle 8$	④ Same as 3
⑤ $\angle 5 \cong \angle 8$	⑤ If 2 $\angle$'s are supp. to $\cong$ $\angle$'s, then they are $\cong$

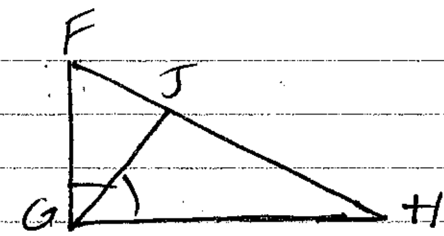
9. Given: $\overline{SV}$ bisects $\angle RST$

Prove: $\angle RSV \cong \angle TSV$



Statements	Reasons
① $\overline{SV}$ bisects $\angle RST$	① Given
② $\angle RSV \cong \angle TSV$	② If a ray bisects an angle, then it cuts the $\angle$ into 2 $\cong$ parts

11\. Given: $\angle F$ is comp to $\angle FGJ$
$\angle H$ is comp to $\angle HGJ$
$\overline{GJ}$ bisects $\angle FGH$



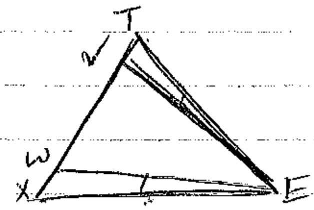
Prove: $\angle F \cong \angle H$

Statements	Reasons
① $\angle F$ comp to $\angle FGJ$	① Given
② $\angle H$ comp to $\angle HGJ$	② Given
③ $\overline{GJ}$ bisects $\angle FGH$	③ Given
④ $\angle FGJ \cong \angle HGJ$	④ If a ray bisects an angle, it cuts the $\angle$ into 2 $\cong$ parts.
⑤ $\angle F \cong \angle H$	⑤ If 2 $\angle$'s are comp to $\cong \angle$'s, then they are $\cong$.

14\. (a) (-10, 0)
(b) they are complementary
(c) $A_{\triangle EMT} = \frac{1}{2}(10)\cdot 7 = 35$

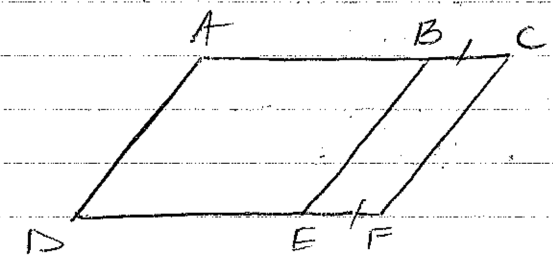
$\boxed{p.86}$ 4-6, 11

4. Given: $\angle TEV \cong \angle XEW$
Prove: $\angle TEW \cong \angle XEV$



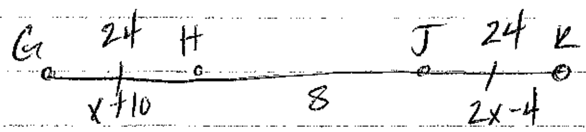
Statements	Reasons
(1) $\angle TEV \cong \angle XEW$	(1) Given
(2) $\angle TEW \cong \angle XEV$	(2) Addition Property

5. Given: $\overline{AC} \cong \overline{DF}$
$\overline{BC} \cong \overline{EF}$
Prove: $\overline{AB} \cong \overline{DE}$



Statements	Reasons
(1) $\overline{AC} \cong \overline{DF}$	(1) Given
(2) $\overline{BC} \cong \overline{EF}$	(2) Given
(3) $\overline{AB} \cong DE$	(3) Subtraction Property

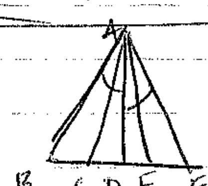
6. Given: $\overline{GH} \cong JK$, $\overline{GH} = x+10$, $\overline{HJ} = 8$, $\overline{JK} = 2x-4$



$x + 10 = 2x \cancel{+} 4$

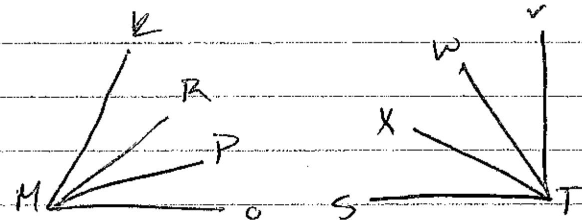
$14 = x$ ⟶ thus $\overline{GH} = 14 + 10 = 24$
and
$\overline{GJ} = 24 + 8 = 32$

11. Given: $\angle BAD \cong \angle FAD$
$\overline{AD}$ bisects $\angle CAE$
Prove: $\angle BAC \cong \angle FAE$



Statements	Reasons
(1) $\angle BAD \cong \angle FAD$	(1) Given
(2) $\overline{AD}$ bisects $\angle CAE$	(2) Given
(3) $\angle CAD \cong \angle EAD$	(3) If a ray bisects an angle, it cuts it into 2 $\cong$ parts
(4) $\angle BAC \cong \angle FAE$	(4) Subtraction Property

p. 91 : #1, 3, 4, 11, 12



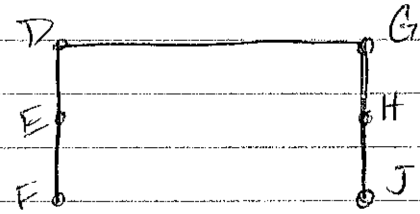
1. Given: $\angle KMR \cong \angle VTW$
$\overline{MR}$ + $\overline{MP}$ trisect $\angle KMO$
$\overline{TX}$ + $\overline{TW}$ trisect $\angle STV$

Prove: $\angle KMO \cong \angle STV$

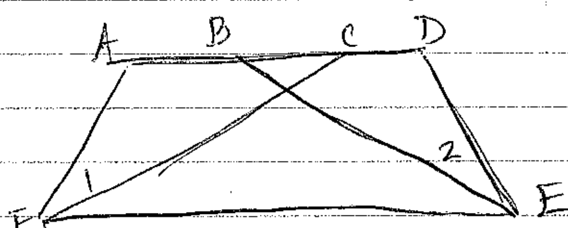
Statements	Reasons
① $\angle KMR \cong \angle VTW$	① Given
② $\overline{MR}$ + $\overline{MP}$ trisect $\angle KMO$	② Given
③ $\overline{TX}$ + $\overline{TW}$ trisect $\angle STV$	③ Given
④ $\angle KMO \cong \angle STV$	④ If $\angle$'s are $\cong$, then their like multiples are $\cong$ (Multiplication Property)

3. Given: $\overline{DF} \cong \overline{GJ}$
E is midpt of $\overline{DF}$
H is midpt of $\overline{GJ}$

Prove: $\overline{DE} \cong \overline{GH}$



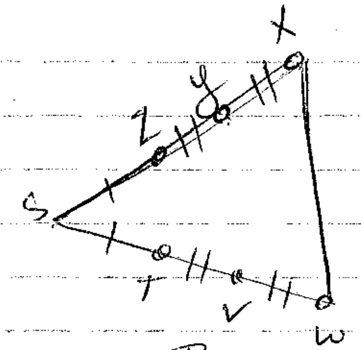
Statements	Reasons
① $\overline{DF} \cong \overline{GJ}$	① Given
② E is midpt of $\overline{DF}$	② Given
③ H is midpt of $\overline{GJ}$	③ Given
④ $\overline{DE} \cong \overline{GH}$	④ If segments are $\cong$, then their like divisions (or halves) are $\cong$ (Division Property)



4. Given: $\angle AFE \cong \angle DEF$
$\overline{FC}$ bisects $\angle AFE$
$\overline{EB}$ bisects $\angle DEF$

Statements	Reasons
① $\angle AFE \cong \angle DEF$	① Given
② $\overline{FC}$ bisects $\angle AFE$	② Given
③ $\overline{EB}$ bisects $\angle DEF$	③ Given
④ $\angle 1 \cong \angle 2$	④ If $\angle$'s are $\cong$ then their like divisions are $\cong$. (Division Property)

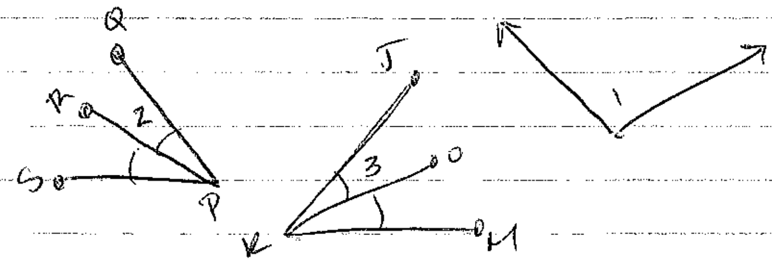
11. Given: $\overline{SZ} \cong \overline{ST}$
$\overline{XY} \cong \overline{VW}$
Y is midpt of $\overline{ZX}$
V is midpt of $\overline{TW}$



Prove: $\overline{SX} \cong \overline{SW}$

Statements	Reasons
① $\overline{SZ} \cong \overline{ST}$	① Given
② $\overline{XY} \cong \overline{VW}$	② Given
③ Y is midpt of $\overline{ZX}$	③ Given
④ V is midpt of $\overline{TW}$	④ Given
⑤ $\overline{SX} \cong \overline{SW}$	⑤ If 2 ∠'s are ≅, then their like multiples are ≅ (Multiplication Property)

12. Given: $\overline{PR}$ bisects ∠QPS
$\overline{KO}$ bisects ∠JKM
∠1 is supp to ∠JKM
∠1 is supp to ∠QPS

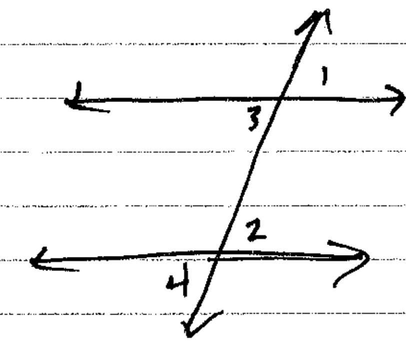


Prove: ∠2 ≅ ∠3

Statements	Reasons
① $\overline{PR}$ bisects ∠QPS	① Given
② $\overline{KO}$ bisects ∠JKM	② Given
③ ∠1 is supp to ∠JKM	③ Given
④ ∠1 is supp to ∠QPS	④ Given
⑤ ∠JKM is ≅ ∠QPS	⑤ If 2 ∠'s are supp to ≅ the same ∠, then they are ≅
⑥ ∠2 ≅ ∠3	⑥ If 2 ∠'s are ≅, then their like divisions (or halves) are ≅ (Division Property

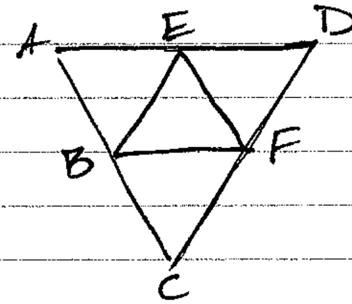
p.97 # 3-5, 10, 12

3. Given: $\angle 1 \cong \angle 3$
$\angle 2 \cong \angle 3$
$\angle 2 \cong \angle 4$
Prove: $\angle 1 \cong \angle 4$



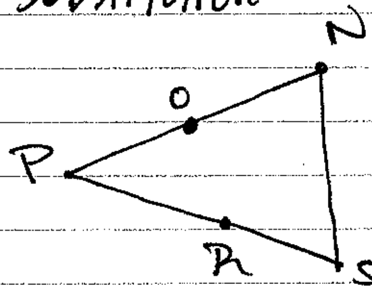
Statements	Reasons
① $\angle 1 \cong \angle 3$	① Given
② $\angle 2 \cong \angle 3$	② Given
③ $\angle 2 \cong \angle 4$	③ Given
④ $\angle 1 \cong \angle 2$	④ Transitive Prop.
⑤ $\angle 1 \cong \angle 4$	⑤ Transitive Prop.

④ Given: $BC + BE = AD$
$BE = EF$
Prove: $BC + EF = AD$



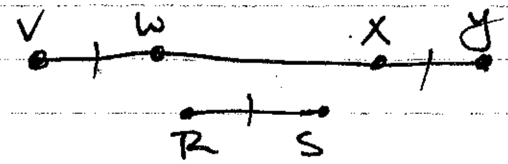
Statements	Reasons
① $BC + BE = AD$	① Given
② $BE = EF$	② Given
③ $BC + EF = AD$	③ Substitution

⑤ Given: O is the midpt of $\overline{NP}$
R is midpt of $\overline{SP}$
$\overline{NP} \cong \overline{SP}$
Prove: $\overline{SR} \cong \overline{NO}$



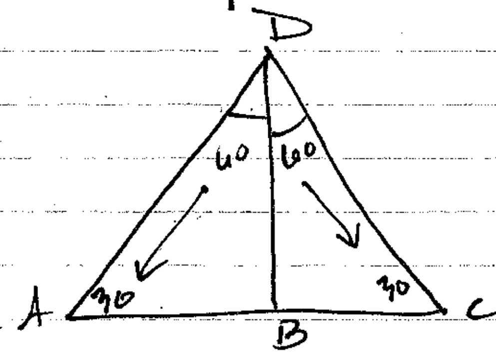
Statements	Reasons
① O is midpt of $\overline{NP}$	① Given
② R is midpt of $\overline{SP}$	② Given
③ $\overline{NP} \cong \overline{SP}$	③ Given
④ $\overline{SR} \cong \overline{NO}$	④ If 2 segs. are $\cong$, then their like halves are $\cong$ (Division Prop.)

10. Given: $\overline{VW} \cong \overline{RS}$
$\overline{XY} \cong \overline{RS}$
Prove: $\overline{VX} \cong \overline{WY}$



Statements	Reasons
① $\overline{VW} \cong \overline{RS}$	① Given
② $\overline{XY} \cong \overline{RS}$	② Given
③ $\overline{VW} \cong \overline{XY}$	③ Transitive Prop.
④ $\overline{VX} \cong \overline{WY}$	④ Addition Prop.

12. Given: $\angle A$ is comp to $\angle ADB$
$\angle C$ is comp to $\angle CDB$
$\overline{DB}$ bisects $\angle ADC$
Prove: $\angle A \cong \angle C$



Statements	Reasons
① $\angle A$ is comp to $\angle ADB$	① Given
② $\angle C$ is comp to $\angle CDB$	② Given
③ $\overline{DB}$ bisects $\angle ADC$	③ Given
④ $\angle ADB \cong \angle CDB$	④ If a ray bisects an angle, it cuts the $\angle$ into 2 $\cong$ parts
⑤ $\angle A \cong \angle C$	⑤ If 2 $\angle$'s are comp to $\cong$ $\angle$'s, then they are $\cong$.

$\angle ADB + \angle CDB$

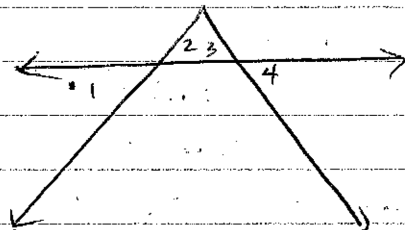
p.102 # 3,5,11,13

3. $2x+7 = x+25$

$x = 18 \longrightarrow m\angle 5 = 2(18)+7 = 43^\circ$

5. Given: $\angle 1 \cong \angle 4$

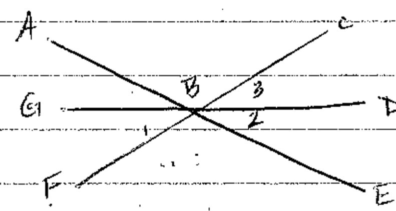
Prove: $\angle 2 \cong \angle 3$



Statements	Reasons
① $\angle 1 \cong \angle 4$	① Given
② $\angle 1 \cong 2$	② Vertical Angles are congruent
③ $\angle 3 \cong \angle 4$	③ Vertical Angles are congruent
④ $\angle 4 \cong \angle 2$	④ Transitive Prop.
⑤ $\angle 3 \cong \angle 2$	⑤ Transitive Prop.

11. Given: $\overline{GD}$ bisects $\angle CBE$

Prove: $\angle 1 \cong \angle 2$



Statements	Reasons
① GD bisects $\angle CBE$	① Given
② $\angle CBD \cong \angle DBE$ ($\angle 3 \cong \angle 2$)	② If a ray bisects an angle, it cuts into 2 $\cong$ pieces
③ $\angle 3 \cong \angle 1$	③ Vertical Angles are $\cong$
④ $\angle 1 \cong \angle 2$	④ Transitive Property

13. They are right $\angle$'s

p.230 #5, 8, 10, 19

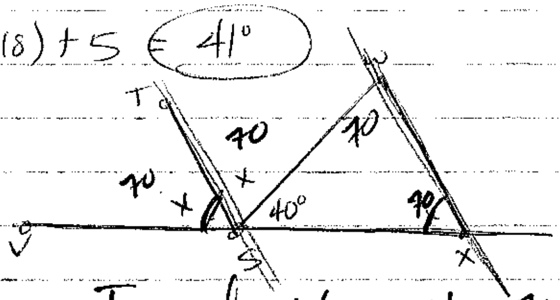
5. $2x + 5 = 3x - 13$

$18 = x \longrightarrow 2(18) + 5 = 41°$

8. $x + x + 40 = 180$

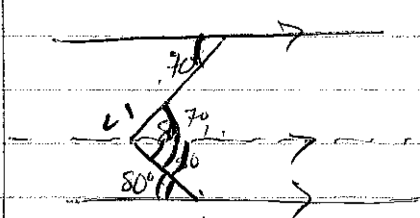
$2x = 140$

$x = 70$



Isosceles b/c 2 ∠'s ≅.

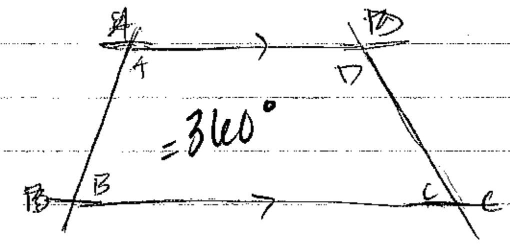
10.



$\angle 8 = 70 + 80 = 150°$

19. Given: ∠C supp to ∠D

Prove: ∠A supp to ∠B



Statements	Reasons
① ∠C supp to ∠D	① Given
② $\overline{AD} \parallel \overline{BC}$	② If same side int ∠'s are supp, then the lines are ∥.
③ ∠A supp to ∠B	③ Same side int ∠'s

$\boxed{p.220}$: #4, 5, 8, 9, 13, 16, 20, 21, 24

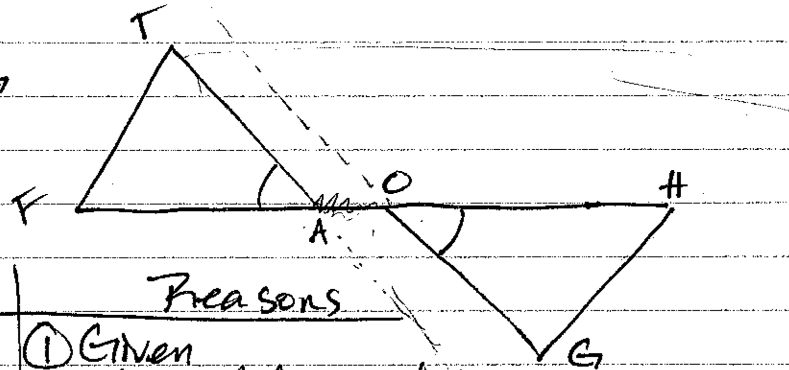
4. $\overline{PQ} \parallel \overline{SR}$, if alt int. ∠'s are ≅, then lines are ∥

5. $\overline{BC} \parallel \overline{DE}$, if corresponding ∠'s are ≅, then lines are ∥

8. $\overline{RA} \parallel \overline{TP}$, if same side int ∠'s are supp. then lines are ∥

9. $\overline{BE} \parallel \overline{DF}$, if alt ext. ∠'s ≅, then lines are ∥

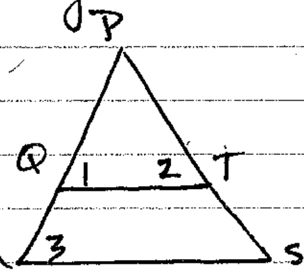
13. Given: ∠FAT ≅ ∠HOG
Prove: $\overline{AT} \parallel \overline{GO}$



Statements	Reasons
① ∠FAT ≅ ∠HOG	① Given
② ∠FAT + ∠HOG are alt. ext. ∠'s	② Assumed from diagram
③ ∴ $\overline{AT} \parallel \overline{GO}$	③ If alt ext. ∠'s are ≅, then the lines are ∥

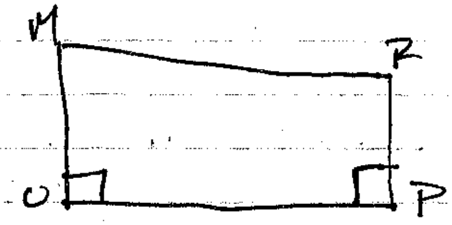
16. $x + 84 = 110$
$x = 26°$ → $5(26) - 20 = (26) + 84$
$110 \stackrel{\checkmark}{=} 110$
thus m ∥ n b/c corresponding ∠'s are ≅.

20. Given: ∠1 comp to ∠2
∠3 comp to ∠2
Prove: $\overline{QT} \parallel \overline{RS}$



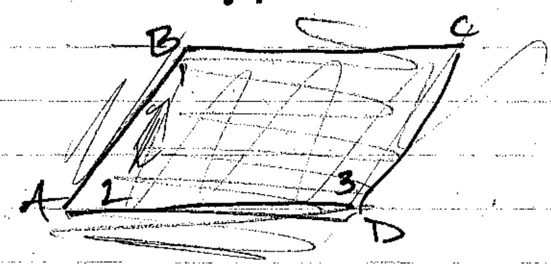
Statements	Reasons
① ∠1 comp ∠2	① Given
② ∠3 comp to ∠2	② Given
③ ∠1 ≅ ∠3	③ If 2 ∠'s are comp to the same ∠, then they are ≅
④ $\overline{QT} \parallel \overline{RS}$	④ If corresponding ∠'s are ≅, then the lines are parallel

21. Given: ∠MOP is a rt ∠
$\overline{RP} \perp \overline{OP}$
Prove: $\overline{MO} \parallel \overline{RP}$



Statements	Reasons
① ∠MOP is a rt ∠	① Given
② $\overline{RP} \perp \overline{OP}$	② Given
③ ∠RPO is a rt ∠	③ ⊥ lines form rt ∠'s
④ ∠MOP + ∠RPO are same side int ∠'s	④ Assumed from diagram
⑤ $\overline{MO} \parallel \overline{RP}$	⑤ If same side int ∠'s are supp, then lines are ∥

24. Given: ∠1 supp to ∠2
∠3 supp to ∠2
Prove: ABCD is a ▱



Statements	Reasons
① ∠1 supp to ∠2	① Given
② ∠3 supp to ∠2	② Given
③ $\overline{BC} \parallel \overline{AD}$	③ If same side int ∠'s are supp. then lines are ∥
④ $\overline{AB} \parallel \overline{CD}$	④ If same side int ∠'s are supp, then lines are ∥
⑤ ABCD is a parallelogram	⑤ If a quadrilateral has opposite sides ∥, then the shape is a parallelogram