

## Chapter Review, Pages 369–370

1. chord, secant    3. diam.    5. tan.    7. 10    9. 100    11.  $\angle YPW$     13. 120    15. In same  $\odot$ ,  $\cong$  chords are equally distant from the center.    17. 50, 50    19. 105    21. 40    23. 9

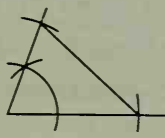
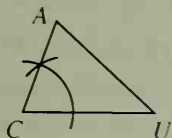
## Cumulative Review, Pages 372–373

1.  $3, 2x + 3$     3. 1.  $\overline{MN}$  is median of trap. (Given)    2.  $\overline{MN} \parallel \overline{ZY} \parallel \overline{WX}$  (Thm. 5-19)    3.  $V$  is the midpt. of  $\overline{WY}$ . (Thm. 5-10)    4.  $\overline{MN}$  bis.  $\overline{WY}$ . (Def. of bis.)    5. 7,  $7\sqrt{3}$     7. 9, 81, 90    9.  $2\sqrt{2}$     11. 1.  $\angle 1 \cong \angle 2$ ,  $\angle 2 \cong \angle 3$  (Given)    2.  $\overline{AB} \parallel \overline{DC}$  (If alt. int.  $\triangleq$ , lines  $\parallel$ .)    3.  $\overline{AD} \parallel \overline{BC}$  (If corr.  $\triangleq$ , lines  $\parallel$ .)  
4.  $ABCD$  is a  $\square$ . (Def. of  $\square$ )    5.  $\overline{AB} \cong \overline{DC}$  (Opp. sides of a  $\square$  are  $\cong$ .)    13. a. If  $\angle A \neq \angle C$ , then quad.  $ABCD$  is not a  $\square$ .    b. If quad.  $ABCD$  is not a  $\square$ , then  $\angle A \neq \angle C$ .    15. 20    17. a. inside    b. on    c. on  
19. a. Janice likes to dance.    b. no concl.    c. no concl.    d. Kim is not Bill's sister.    21. always  
23. always    25. sometimes    27. 0, 1    29. 1.  $AB > AC$  (Given)    2.  $m\angle ACB > m\angle ABC$  (Thm. 6-2)  
3.  $BD = EC$  (Given)    4.  $BC = BC$  (Reflex.)    5.  $BE > CD$  (SAS Ineq. Thm.)

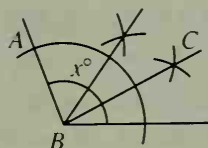
## Chapter 10

### Written Exercises, Pages 378–379

9.

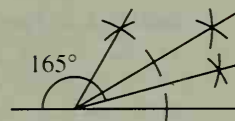


13.



$$m\angle ABC = \frac{3}{4}x$$

15. c. They are the same pt., which is equidistant from the sides of the  $\triangle$ .  
19. Methods may vary; for example, see the figure at the right.



### Mixed Review Exercises, Page 380

1. midpt.    2.  $\square$     3. rect.    4. rhom.    5.  $5\sqrt{2}$     6. 108

### Written Exercises, Pages 383–385

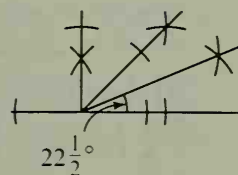
1. Const. 5    3. Const. 4    5. Const. 7    7. Extend  $\overrightarrow{HJ}$ ; use Const. 6.  
11. Methods may vary; for example, see the figure at the right.

15. b, c. Yes; yes    19. Const.  $\overline{AB}$  so that  $AB = a$ . Const. the  $\perp$  bis. of

$\overline{AB}$  int.  $\overline{AB}$  at  $M$ , so that  $AM = \frac{1}{2}a$ . Const.  $\overline{MC} \perp \overline{AB}$  so that  $MC = \frac{1}{2}a$ .

With ctrs.  $A$  and  $C$  and radius  $AM$ , draw arcs int. at  $D$ . Draw  $\overline{AD}$  and  $\overline{CD}$ .

23. Const. a square with sides of length  $b$ .



### Written Exercises, Pages 388–389

1. a. any acute  $\triangle$     b. any obt.  $\triangle$     c. any rt.  $\triangle$     3. 2, 4    5. 3.8, 5.7    7. Const. 3    9. The pt. of int. of the  $\perp$  bis. of  $\overline{XY}$ ,  $\overline{XZ}$ , and  $\overline{YZ}$  is equidistant from all 3 towns. It would be wiser to build it equidistant from  $X$  and  $Z$ , near  $Y$ .    11. a.  $GD = \frac{1}{3} \cdot AD = \frac{1}{3} \cdot BE = GE$     b.  $GB$     c.  $\angle GBA$ ,  $\angle GED$ ,  $\angle GDE$     13. 3, -1

15. Key steps of proof: 1. Draw  $\overline{BD}$  int.  $\overline{AC}$  at  $Y$ . (Through any 2 pts. there is ex. 1 line.)    2.  $\overline{BM}$  and

$\overline{CY}$  are medians of  $\triangle BDC$ . (Def. of median)    3.  $CX = \frac{2}{3}CY$  (The medians of a  $\triangle$  int. in a pt. that is  $\frac{2}{3}$  of the

- dist. from each vertex to the opp. side.)    4.  $CX = \frac{2}{3} \cdot \frac{1}{2} \cdot AC = \frac{1}{3}AC$  (Subst.)    17. a. pts. in the interior of  $\angle XPY$     b. pts. in the interior of the  $\angle$  vert. to  $\angle XPY$