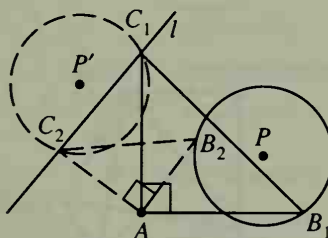
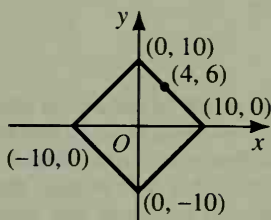


1. about  $\frac{2}{3}$ ; rotation  $90^\circ$     3.  $\overrightarrow{RS} \parallel \overrightarrow{R'S'}$     5. 2; 3    7.  $y = 2x + 3$     9. Refer to Sel. Ans. for p. 527.

1. rt.    3. obt.    5. a. slope of  $\overline{AB} = \frac{3}{2}$ , slope of  $\overline{BC} = -\frac{2}{3}$ ;  $\overline{AB} \perp \overline{BC}$  b.  $(AB)^2 = 13$ ,  $(BC)^2 = 52$ ,  $(AC)^2 = 65$     7.  $\mathcal{R}_{N, -90}$  followed by  $D_{N, 2}$ ; 2    9. The left fig. has area  $c^2$ ; the right fig. has area  $b^2 + a^2$ . This suggests the Pyth. Thm.    11–21. Refer to Sel. Ans. of specified pages.

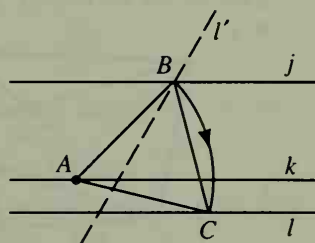
1. a.  $(x - 6)^2 + y^2 = 25$  b. Yes c. No 3. b.  $M(-1, 7)$  c. slope of  $\overline{OM} = -7$ ; slope of  $\overline{AB} = \frac{1}{7}$ ;  
Thm. 13-4 5. radius of outer  $\odot = \sqrt{225} = 15$ , radius of inner  $\odot = \sqrt{25} = 5$ , dist. bet. ctrs. of  $\odot$ s is 10;  
 $10 + 5 = 15$  7. a.  $\odot O$ ; the other tan. to  $\odot O$  from  $P$  b.  $\overline{PA}$  and its image are  $\cong$ . c. Thm. 9-1 Cor.  
9. To find  $B$ , rotate  $C - 60^\circ$  about  $A$ . 11-17. Refer to Sel. Ans. of specified pages.

7. Rotate  $\odot P$   $90^\circ$  about  $A$  to locate two points,  $C_1$  and  $C_2$ , then rotate each  $-90^\circ$  about  $A$  to get  $B_1$  and  $B_2$ .



1. 32      3. 64      5. a.  $-60^\circ, \frac{1}{2}$     b. reg. II; reg. III; reg. IV    c.  $\frac{1}{4}, \frac{1}{16}, \frac{1}{64}$

1. Plans for proofs: a. Use Thm. 4-5 b. Reflect  $\triangle ADC$  to  $\triangle ABC$ . The isom. preserves dist. c. Assign coords.  $A(0, a)$ ,  $B(b, 0)$ ,  $C(0, -c)$ ,  $D(-b, 0)$  and use the dist. form. 3. a. Plan for proof: Use SAS to prove  $\triangle XBC \cong \triangle ABY$ . b.  $\overline{XC}$  Answers may vary in Exs. 5-17. 5. square; use a coord. approach. 7. Use a syn. or coord. approach. 9. Use a syn. approach. Draw  $\overline{XY} \parallel \overline{BC}$  through  $P$  with  $X$  on  $\overline{AB}$  and  $Y$  on  $\overline{DC}$ . 11. Use a syn. approach. Extend  $\overline{AB}$  and  $\overline{DC}$  to int. at rt.  $\angle X$ . Then use the Pyth. Thm. 13. Use a transf. approach. Trans.  $l$  toward  $m$  a dist.  $AB$ . 15. Use a transf. approach. See the figure at the right. Const.  $\parallel$  lines  $j$ ,  $k$ ,  $l$ . Choose  $A$  on  $k$ . Rotate  $l$   $60^\circ$  about  $A$  to get  $B$  on  $j$ . Rotate  $B - 60^\circ$  about  $A$  to get  $C$  on  $l$ .



Ex. 15

17. Use a syn. approach. Note that  $XN = \frac{1}{2}AB$  and  $YN = \frac{1}{2}DC$ .