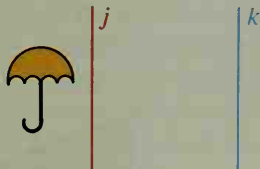
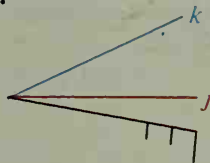


Copy the figure on the chalkboard and find its image by $R_k \circ R_j$. Then copy the figure again and find its image by $R_j \circ R_k$.

9.



10.



11. Prove Theorem 14-6. (Hint: Let S and T be isometries. Consider a \overline{PQ} under $S \circ T$.)

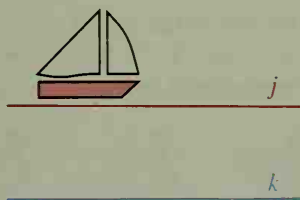
12. Explain how the Corollary follows from Theorem 14-8.

Written Exercises

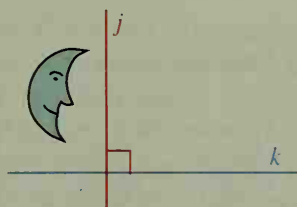
- A
- If $f(x) = x^2$ and $g(x) = 2x - 7$, evaluate the following.
 - $(g \circ f)(2)$
 - $(g \circ f)(x)$
 - $(f \circ g)(2)$
 - $(f \circ g)(x)$
 - Repeat Exercise 1 if $f(x) = 3x + 1$ and $g(x) = x - 9$.
 - If $h:x \rightarrow \frac{x+1}{2}$ and $k:x \rightarrow x^3$, complete the following.
 - $k \circ h:3 \rightarrow \frac{?}{?}$
 - $k \circ h:5 \rightarrow \frac{?}{?}$
 - $k \circ h:x \rightarrow \frac{?}{?}$
 - $h \circ k:3 \rightarrow \frac{?}{?}$
 - $h \circ k:5 \rightarrow \frac{?}{?}$
 - $h \circ k:x \rightarrow \frac{?}{?}$
 - Repeat Exercise 3 if $h:x \rightarrow x^2 - 1$ and $k:x \rightarrow 2x + 7$.

Copy each figure and find its image under $R_k \circ R_j$. Then copy the figure again and find its image under $R_j \circ R_k$.

5.



6.



Copy each figure twice and show the image of the red flag under each of the composites given.

- $H_B \circ H_A$
 - $H_A \circ H_B$



A

B

- $R_j \circ H_C$
 - $H_C \circ R_j$

C



j

- $H_E \circ D_{E, \frac{1}{3}}$
 - $D_{E, \frac{1}{3}} \circ H_E$

E

