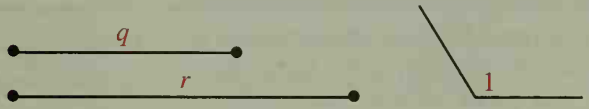
Construct an angle with the indicated measure.

5. 90 **6.** 45 **7.** 135 **8.** your choice

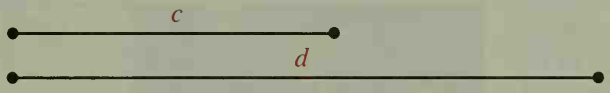
Use the segments shown to construct a segment having the indicated length.

9. $a + b$ **10.** $b - a$ **11.** $3a - b$ **12.** $a + 2b$

13. Use the given segments and angle to construct a triangle in which an angle congruent to $\angle 1$ is included between segments of lengths q and r.



Use the segments shown below. Perform each construction using paper folding and tracing.



14. Construct a rectangle with diagonals of length d. (*Hint:* A quadrilateral is a rectangle if its diagonals are congruent and bisect each other.)

15. Construct a rhombus with diagonals of lengths c and d. (*Hint:* A quadrilateral is a rhombus if its diagonals are perpendicular and bisect each other.)

16. Construct a square with diagonals of length c. (*Hint:* A quadrilateral is a square if its diagonals are perpendicular, are congruent, and bisect each other.)

17. Construct a square with sides of length c.

18. Construct a rectangle with sides of lengths c and d.

For each of Exercises 19 and 20, trace $\triangle ABC$ onto a piece of paper. Then use paper folding.

19. a. Construct the perpendicular bisectors of all three sides of $\triangle ABC$. Label their point of intersection P. Recall that P is the circumcenter of $\triangle ABC$.

b. Use a compass to draw the circle that circumscribes $\triangle ABC$. (*Hint:* The circle has center P and radius PA.)

20. a. Construct the incenter of $\triangle ABC$ (the point at which the three angle bisectors meet).

b. Use a compass to draw the circle that is inscribed in $\triangle ABC$.
(*Hint:* Construct the perpendicular to one of the sides from the incenter.)