

Construct an angle with the indicated measure.

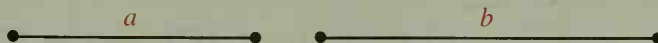
5. 90

6. 45

7. 135

8. your choice

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



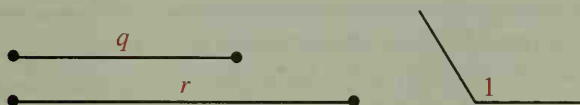
9. $a + b$

10. $b - a$

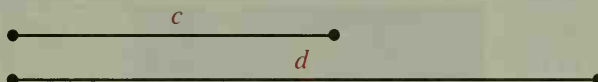
11. $3a - b$

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.*)

