Constructions Using Paper Folding

Basic Constructions

Chapter 10 teaches geometric constructions using a straightedge and a compass. Constructions can also be done using paper folding and tracing. Constructions 1–7 below and in the exercises are the same as Constructions 1–7 in Chapter 10, but the procedures here use paper folding and tracing.

Use paper you can see through. *Every time you fold the paper, make a crease and draw a dashed line along the crease.*

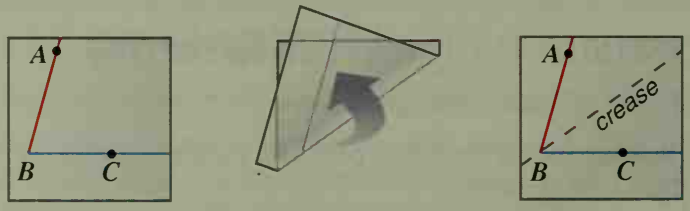
You will learn how to do Constructions 1, 2, and 7 in Exercises 1, 2, and 7, respectively.

Construction 3 *Bisector of an angle*

Given an angle, construct the bisector of the angle.

Given: $\angle ABC$
Construct: The bisector of $\angle ABC$
Procedure: Fold the paper so that $\overrightarrow{BC}$ is on top of $\overrightarrow{BA}$

The crease is the bisector of $\angle ABC$.



Construction 4 *Perpendicular bisector of a segment*

Given a segment, construct the perpendicular bisector of the segment.

Given: $\overline{AB}$
Construct: The perpendicular bisector of $\overline{AB}$
Procedure: Fold the paper so that B is on top of A.

The crease is the perpendicular bisector of $\overline{AB}$