

2. Draw any $\angle ABC$. Use Construction 2, below, to construct $\angle DEF$ congruent to $\angle ABC$.

Construction 2 *Congruent angle*

Given an angle, construct an angle congruent to the given angle.

Given: $\angle ABC$

Construct: An angle congruent to $\angle ABC$

Procedure: Place a piece of paper over $\angle ABC$ and trace $\angle ABC$ onto the piece of paper. Label the new angle $\angle DEF$.

$\angle DEF$ is congruent to $\angle ABC$.

Draw the figure described. Then use paper folding to do the indicated construction.

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| 3. Given: Any obtuse $\angle JKL$
Construct: The bisector of $\angle JKL$ | 4. Given: Any segment \overline{HM}
Construct: The perpendicular bisector of \overline{HM} |
| 5. Given: Any point D on a line l
Construct: The perpendicular to l at D | 6. Given: Any point R outside a line n
Construct: The perpendicular to n from R |

For Exercises 7–9, refer to Construction 7 below.

Construction 7 *Parallel through a point outside a line*

Given a point outside a line, construct the parallel to the line through the given point.

Given: Point P outside line n

Construct: The line through P parallel to n

Procedure: Construct the perpendicular to n from P . Label it k .

Construct the perpendicular to k at P . Label it m .

m is the line through P parallel to n .

7. Draw a line n and a point P outside the line. Construct the line through P that is parallel to n .
8. Which of Constructions 1–6 are used in Construction 7?
9. Write an explanation to justify that m is parallel to n .

For each of Exercises 10 and 11, trace \overline{AB} onto a new piece of paper. Then use paper folding.



10. a. Divide \overline{AB} into two congruent parts.
b. Which construction did you use in part (a)?
11. a. Divide \overline{AB} into four congruent parts.
b. Explain the method you used in part (a).