Lesson 4.5 | Unit 4 Practice — Teacher Version

Unit 4: Triangle Theorems • 90 minutes

Teacher Overview

This lesson is individual practice in preparation for the assessment. The first 15 minutes are collaborative — groups at boards working on a single challenge problem. The remainder of class is individual work on the problem set below, self-directed by navigation instrument. The teacher circulates and uses the final 10–15 minutes to address the most common errors seen.

If the class needs more time after this session, the assessment can be pushed one day. This lesson is designed to serve as both review and final preparation — a second full practice day is not built into the unit plan but is a legitimate teacher call based on where the class is.

Opening — Groups at Boards (≈ 15 minutes)

Write one of the following on the board — choose based on where you sense the class needs most work. Groups work together for about 15 minutes, then transition to individual practice.

Option A (Base Angles): *Triangle PQR has PQ = PR. The angle bisector from P meets QR at S. Prove that QS = SR.*

Option B (Bisector Theorems): *Point T is equidistant from the sides of ∠ABC. Point T is also equidistant from B and C. What can you conclude? Write a complete justification.*

Option C (Chain): *In isosceles triangle ABC with AB = AC, D is the midpoint of BC. Prove that AD ⊥ BC.*

After 15 minutes, do not consolidate the board work formally. Simply say: 'Take what you worked on and use it as you start the problem set. Find your level on each row of the navigation instrument and begin there.'

Individual Practice (≈ 60 minutes)

Students work individually. The problem set is organized by navigation instrument row and level — the table below shows the alignment. Students should begin at the level they honestly marked on their navigation instrument for each row.

Row	Basic	Intermediate	Advanced
Triangle & Polygon Angles	**Q1**	**Q2**	**Q3**
Constructions	**Q4**	**Q5**	**Q6**
Base Angles Theorem	**Q7**	**Q8, Q9**	**Q10, Q11**
Bisector Theorems	**Q12**	**Q13, Q14**	**Q15, Q16**

Circulate constantly. Look for: students invoking theorems in the wrong direction (theorem vs. converse), students who can apply formulas but cannot write a proof, students skipping the Given/Prove setup. Address these individually rather than stopping the class.

Closing (≈ 10–15 minutes)

Pull the class together and address the two or three errors you saw most often during circulation. Do not introduce new content — this is targeted clarification only. End by directing students to update their navigation instrument marks based on what the practice revealed.