Lesson 3.2 Practice: The Parallel Postulate and Parallel Lines

School Launch · Geometry · Unit 3: Parallel and Perpendicular Lines · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Two parallel lines are cut by a transversal. One angle measures 71°. Find its alternate exterior partner. EASY

2. Two parallel lines are cut by a transversal. One angle measures 133°. Find its alternate exterior partner. EASY

3. Two parallel lines are cut by a transversal. One angle measures 133°. Find its corresponding partner. EASY

4. Parallel lines are cut by a transversal. Alternate interior angles measure $(3x - 20)^\circ$ and $(4x - 43)^\circ$. Find x and both angles. MEDIUM

5. Parallel lines are cut by a transversal. Alternate exterior angles measure $(2x - 2)^\circ$ and $(4x - 36)^\circ$. Find x and both angles. MEDIUM

6. Parallel lines are cut by a transversal. Alternate exterior angles measure $(2x - 6)^\circ$ and $(1x + 11)^\circ$. Find x and both angles. MEDIUM

7. Parallel lines are cut by a transversal. Alternate exterior angles measure $(3x + 13)^\circ$ and $(2x + 35)^\circ$. Find x and both angles. MEDIUM

8. Parallel lines are cut by a transversal. Corresponding angles measure $(4x - 12)^\circ$ and $(2x + 38)^\circ$. Find x and both angles. HARD

9. Parallel lines are cut by a transversal. Corresponding angles measure $(5x - 6)^\circ$ and $(4x + 6)^\circ$. Find x and both angles. HARD

10. Parallel lines are cut by a transversal. Alternate interior angles measure $(5x - 11)^\circ$ and $(3x + 13)^\circ$. Find x and both angles. HARD