Lesson 6.3 Practice: Proving That a Quadrilateral Is a Parallelogram

School Launch · Geometry · Unit 6: Quadrilaterals and Polygons · 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. Is $ABCD$ with $A(-5,-4)$, $B(-2,-5)$, $C(0,-2)$, $D(-3,-1)$ a parallelogram? Justify with slopes or midpoints of diagonals. EASY

2. Is $ABCD$ with $A(-1,-1)$, $B(4,1)$, $C(7,7)$, $D(2,5)$ a parallelogram? Justify with slopes or midpoints of diagonals. EASY

3. Is $ABCD$ with $A(-3,2)$, $B(3,3)$, $C(6,5)$, $D(0,4)$ a parallelogram? Justify with slopes or midpoints of diagonals. EASY

4. Is $ABCD$ with $A(-3,1)$, $B(2,2)$, $C(1,7)$, $D(-5,6)$ a parallelogram? Justify with slopes or midpoints of diagonals. MEDIUM

5. Is $ABCD$ with $A(2,0)$, $B(6,0)$, $C(7,6)$, $D(3,6)$ a parallelogram? Justify with slopes or midpoints of diagonals. MEDIUM

6. Is $ABCD$ with $A(-1,-1)$, $B(1,-1)$, $C(3,2)$, $D(0,2)$ a parallelogram? Justify with slopes or midpoints of diagonals. MEDIUM

7. Is $ABCD$ with $A(-4,-4)$, $B(2,-6)$, $C(1,0)$, $D(-6,2)$ a parallelogram? Justify with slopes or midpoints of diagonals. MEDIUM

8. Is $ABCD$ with $A(1,1)$, $B(7,-1)$, $C(7,1)$, $D(1,3)$ a parallelogram? Justify with slopes or midpoints of diagonals. HARD

9. Is $ABCD$ with $A(-4,-2)$, $B(-1,-3)$, $C(-2,-1)$, $D(-5,0)$ a parallelogram? Justify with slopes or midpoints of diagonals. HARD

10. Is $ABCD$ with $A(-6,-6)$, $B(-2,-3)$, $C(-1,1)$, $D(-5,-2)$ a parallelogram? Justify with slopes or midpoints of diagonals. HARD