

Geometry Worksheet 10.1b Solutions

1. This is not a parallelogram because parallelograms have two pairs of opposite sides congruent, not two pairs of congruent consecutive sides.
2. If two pairs of opp. sides are \cong , then quadrilateral is a parallelogram.
3. If two pairs of opp. sides are \cong , then quadrilateral is a parallelogram.
4. If diagonals bisect each other, then quadrilateral is a parallelogram.
5. We know JKML is a parallelogram since both pairs of opposite sides are congruent. Since the side lengths are unchanging, it will continue to be a parallelogram even when the derailleur moves. As a result, the opposite sides will always be parallel.
6. $x = 114$
7. $x = 50$
8. Answers vary
9. Answers vary
10. $x = \frac{2}{3}, m\angle SU = 8$
11. $x = 8, m\angle ORQ = 94^\circ$
12. $x = 4, m\angle CAB = 108^\circ$
13. Answers vary