Lesson 6: Rotations of 180 Degrees

Exit Ticket

Let there be a rotation of 180 degrees about the origin. Point \( A \) has coordinates \((-2, -4)\), and point \( B \) has coordinates \((-3, 1)\), as shown below.

1. What are the coordinates of \( \text{Rotation}(A) \)? Mark that point on the graph so that \( \text{Rotation}(A) = A' \). What are the coordinates of \( \text{Rotation}(B) \)? Mark that point on the graph so that \( \text{Rotation}(B) = B' \).

2. What can you say about the points \( A, A' \), and \( O \)? What can you say about the points \( B, B' \), and \( O \)?

3. Connect point \( A \) to point \( B \) to make the line \( L_{AB} \). Connect point \( A' \) to point \( B' \) to make the line \( L_{A'B'} \). What is the relationship between \( L_{AB} \) and \( L_{A'B'} \)?