

Name: \_\_\_\_\_

## Coordinate Proofs Intervention

1. The vertices of quadrilateral  $KAIT$  are  $K(0, 0)$ ,  $A(a, 0)$ ,  $I(a + b, c)$ , and  $T(b, c)$ . Use coordinate geometry to prove that quadrilateral  $KAIT$  is a parallelogram.
2. Triangle  $ART$  has vertices  $A(a, b)$ ,  $R(a + c, b)$ , and  $T(a + \frac{c}{2}, b + d)$ . Use coordinate geometry to prove that triangle  $ART$  is isosceles.
3. Given  $TRPZ$  with  $T(0,0)$   $R(a,0)$   $P(a-b,c)$   $Z(b,c)$ , prove that  $TRPZ$  is an isosceles trapezoid.