Coordinate Proofs of Congruent Triangles

1. Given: the Coordinates of Square ABCD

 Prove: $∆ABC≅∆ADC$

2. Given: the Coordinates of Square ABCD

 Prove: $AC≅BD$

3. Given: the Coordinates of Square ABCD

C (2a, 2a)

D (0, 2a)

 Prove: $∆ABX≅∆CDX$

X

B(2a, 0)

4. Given A(0,0), B(2b,2c) and C(4b,0) and M and N are the midpoints of AB and BC respectively.

 Prove: ∆MCA ∆NAC



5. Given: $MD⊥BD, BC⊥the x-axis$ and the coordinates of the vertices

 Prove: $∆ABC≅∆BMD$





6.

7. Given: the coordinates of figure PTRA

 Prove: $∆PTR≅∆ART$



8. Given: the coordinates of $∆AXB$ and $∆CXD$

 Prove: $∆AXB≅∆CXD$

X