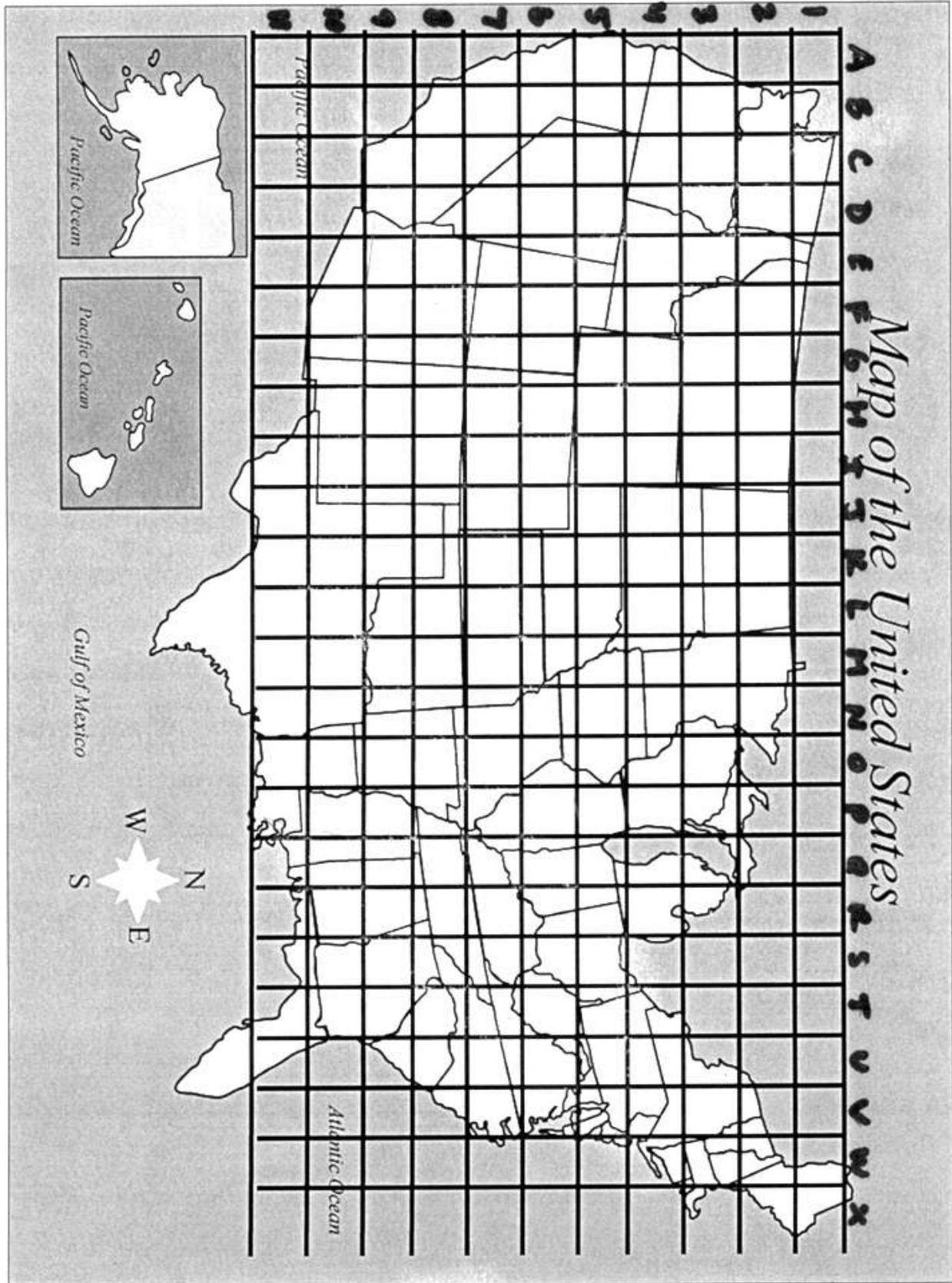


# Vector Treasure Hunt



The following is a list of directions that leads to a treasure somewhere in the United States. Your job is to calculate the magnitude and direction of the resultant vector to go from Cleveland, OH directly to the site of the treasure. Points will be awarded if you can determine what state you would be in and in what exact quadrant would you end. Use the bottom of this sheet to solve for the final vector mathematically. Use the other side of this sheet to solve for it graphically.

1 cm = 220 km

660 km due East

1826 km at  $48^\circ$  South of West

1210 km at  $13^\circ$  East of North

1430 km at  $40^\circ$  South of West

1804 km at  $7^\circ$  North of West

1364 km at  $25^\circ$  North of East

1606 km at  $40^\circ$  North of West

1562 km at  $66^\circ$  South of East