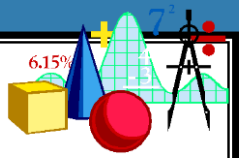
Mathematics, Grade 8
Unit XII: Lesson 4 Road Map Rally: **Mathematical Map Rally**



In a rally race, participants use a set of instructions and a map to follow an indicated route. Instructions include riddles, puzzles, and directions. Review coordinate geometry.

Secure several copies of the same city map. Design a road map rally race whose instructions consist mostly of mathematical expressions, equations, coordinates, or terminology. Use problems dealing with a variety of factors such as speeds, time, mileage, road numbers, number of intersections, degrees, geometric shapes, names, altitudes, miles per gallon, gas consumed, and driving costs. Utilize the grid system on the map as a coordinate plane. Choose a point for the origin. Give clues for roads parallel to the x or y axis as a single variable equation such as, y = (some constant). Consider using greater than, less than, or if-then statements.

Sample clues might read:

68 Proceed 10 miles. Turn right towards the park on the 17 first road whose graph is y = 5. Turn on the road whose number is the same as the length of time it would take you to travel this road up to the park at 25 Mph. y + 2? = 32 If y < 6 turn left, If y > 6, right.

Use your map to take your family on an outing or have your classmates work in groups to do a simulated rally.