Question 1

RUBRIC

Score	Description
2	Response demonstrates understanding of the x- and y-axis on a coordinate grid and how coordinates values change travelling away from the origin. • Assign a total of 1 point for correct answers to both a. and b. • Assign 1 point for correct coordinates on part c.

SAMPLE RESPONSE

a. Route 42

b. Route 25

c. (6, 15)

Question 2

RUBRIC

Score	Description
2	Response demonstrates thorough understanding of how coordinates values change as the points move up or down on the coordinate grid. • Assign 2 points for completely correct explaination.

SAMPLE RESPONSE

Since south is down on the grid, he can subtract 15 from 39, the y- coordinate, to find the new coordinate, (24, 24). The x-coordinate stays the same.

Question 3

RUBRIC

Score	Description
6	Response demonstrates thorough understanding of graphing points in the first quadrant of the coordinate grid. • Assign 2 points for each completely correct part.

SAMPLE RESPONSE

a. (4, 3), (11, 3), (4, 13) and (11, 13)

b. 70 feet wide along the x-axis and 100 feet long along the y-axis.

c. Use the key provided to scare the student's graph.

Question 4

RUBRIC

Score	Description
4	Response demonstrates thorough understanding of graphing paints in the first quadrant of the coordinate grid. • Assign 2 points for each completely correct part.

SAMPLE RESPONSE

Part a.

$30 \div 10 = 3$ ticks. It is north of Route 42, so it is along the y-axis.

$40 \div 10 = 4$ ticks. It is east of Route 25, so it is along the x-axis.

Together the point is (4, 3).

Part b.

The northwest corner is 100 feet north of the southwest corner. $100 \div 10 = 10$. It is 10 ticks up from the southwest corner point. This means the y value is increased by 10. $3 + 10 = 13$. The x value stays the same so the point is (4, 13).

Question 5
RUBRIC

Score	Description
5	Response demonstrates thorough understanding of graphing points in the first quadrant of the coordinate grid. • Assign 1 point for a completely correct answer to parts a, b, and c. (3 points total) • Assign 2 points for a completely correct graph of the fire station.

SAMPLE RESPONSE

Part a. (14, 37), (8, 37), (14, 20) and (8, 20)

Part b. The point is 20 ticks up from the x-axis and 8 ticks right of the y-axis.

Part c. The marker is located 80 feet east of Route 25 and 200 feet north of Route 42.

Part d. Use the key provided to score the student's graph

Question 6
RUBRIC

Score	Description
2	Response demonstrates thorough understanding of graphing points in the first quadrant of the coordinate grid. • Assign 2 points for a completely correct graph of the Patrol Parking.

SAMPLE RESPONSE

Use the key provided to score the student's graph.

Question 7
RUBRIC

Score	Description
4	Response demonstrates thorough understanding of graphing points in the first quadrant of the coordinate grid. • Assign 1 point for a completely correct answer to parts a, b, and c. (2 points total) • Assign 2 points for a completely correct graph of the Patrol Parking.

SAMPLE RESPONSE

a. (12, 5), (12, 11), (18, 5), (18, 11)

b. (18, 7) and (18, 9)

c. Use the key provided to score the student's graph.

Question 8
RUBRIC

Score	Description
2	Response demonstrates thorough understanding of how coordinate values change as the points move up or down on the coordinate grid. • Assign 2 points for a completely correct explaination.

SAMPLE RESPONSE

Since east is to the right on the grid, he can add 8 to 24, the x-coordinate, to find the new coordinate, (32, 39). The y-coordinate stays the same.

Question 9
RUBRIC

Score	Description
2	Response demonstrates thorough understanding of graphing points in the first quadrant of the coordinate grid. • Assign 1 point for correctly labeling the reference points.

SAMPLE RESPONSE

Use the key provided to score the student's graph.

Question 10
RUBRIC

Score	Description
7	Response demonstrates thorough understanding of graphing points in the first quadrant of the coordinate grid. • Assign 1 point for a completely correct answer to parts a, b, c, and e. (4 points total) • Assign 3 points for a completely correct graph of the roadway and entrance into the general police parking lot.

a. The center of the traffic circle is _360___ feet _north_ of Route 42 and _210_feet __east___ of Route 25.

b. 60 ÷ 10 = 6 ticks

c. 20 ÷ 10 = 2 ticks

d. Use the key provided to score the student's graph

e. (21, 39), (21, 33), (24, 36), (18, 36).

Question 11
RUBRIC

Score	Description
2	Response demonstrates thorough understanding of how coordinate values change as the points move up or down on the coordinate grid. • Assign 2 points for a completely correct explaination.

SAMPLE RESPONSE

Since east is to the right on the grid and south is down on the grid, he can add 8 to 24, the x- coordinate, and subtract 15 from 39, the y-coordinate to find the new coordinate, (32, 24).

NOTE: Students may also use the y-coordinate of the second point and the x-coordinate of the third point.

Question 12
RUBRIC

Score	Description
3	Response demonstrates thorough understanding of the properties of parallelograms. • Assign 2 points for completely correct answer to part a. • Assign 1 point for correct answer to part b.

SAMPLE RESPONSE

4 sides, opposite sides are parallel

All of the buildings (except possibly the town hall—depends on the student's interpretation) are parallelograms because they have 4 side and the opposite sides are parallel.

Both parking lots at the police station and the town hall parking lot are parallelograms.

NOTE: Student many also identify the parking lot entrances as parallelograms.

Question 13

RUBRIC

Score	Description
3	Response demonstrates thorough understanding of the properties of rhombi. • Assign 2 points for completely correct answer to part a. • Assign 1 point for correct answer to part b.

SAMPLE RESPONSE

4 sides, opposite sides parallel; opposite angles equal

The general police parking area is a rhombus. All the sides are 60 feet in length with opposite sides parallel. Opposite angles are 90 degrees and equal

NOTE: Student many also include the entrance to the general police parking as a rhombus.

Question 14

RUBRIC

Score	Description
3	Response demonstrates thorough understanding of the properties of circles. • Assign 2 points for completely correct answer to part a. • Assign 1 point for correct answer to part b.

SAMPLE RESPONSE

No angles; all points equidistant

The town hall dome, and the inner and outer edge of the traffic circles are circles. None of these shapes have angles and all the points are the same distance from a center point.

NOTE: Students may also mention that a traffic circle, by its name is a circle. Also a rotunda, by the definition provided in the town hall description is a circle.