

2007 ISAT Grade 8
Mathematics
Short Response Item #1

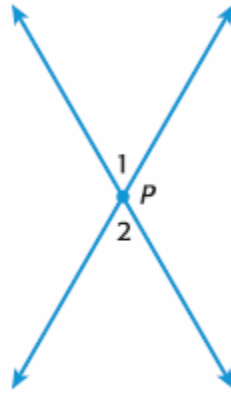
State Goal 9: Geometry

Standard 9A: Properties of Single Figures and Coordinate Geometry

Assessment Objective 9.8.09: Solve problems involving vertical, complementary, and supplementary angles.

1

The lines shown intersect at point P .



If the measure of $\angle 1 = 60^\circ$ and the measure of $\angle 2 = (4x + 36)^\circ$, what is the value of x ?

Show your work.

**2007 ISAT Grade 8
Mathematics
Short Response Item #2**

State Goal 8: Algebra

Standard 8C, 8D: Writing, Interpreting, and Solving Equations

Assessment Objective 8.8.13: Solve word problems involving unknown quantities.

2

There are 24 students in Mr. Reyna's class. Each student is wearing either a hat, or gym shoes, or both a hat and gym shoes.

- 16 students are wearing hats.
- 20 students are wearing gym shoes.

How many students in Mr. Reyna's class are wearing *both* a hat and gym shoes?

Show your work.

**2007 ISAT Grade 8
Mathematics
Extended Response Item #1**

State Goal 10: Data Analysis, Statistics, and Probability

Standard 10A, 10B: Data Analysis and Statistics

Assessment Objective 10.8.03: Create a bar graph, chart/table, line graph, or circle graph and solve a problem using the data in the graph for a given set of data.

1

In a recent survey, 72 people who like to bake were asked to choose their favorite item to bake. Of those people, $\frac{1}{4}$ chose cake, $\frac{1}{8}$ chose bread, $\frac{1}{2}$ chose cookies, and the rest chose pie as their favorite item to bake.

Create a graph to represent this information. Be sure to label all parts of your graph and include a title.

Show all your work. Explain in words how you created your graph. Tell why you took the steps you did to solve the problem.