

Solving the WASL

The math portion of the WASL is composed of multiple-choice questions and word problems, which require both short and extended responses. Tools (including calculators, compasses and rulers) are allowed during the first day of testing but not the second, when they could prevent the student from demonstrating a skill or mastery of a concept.

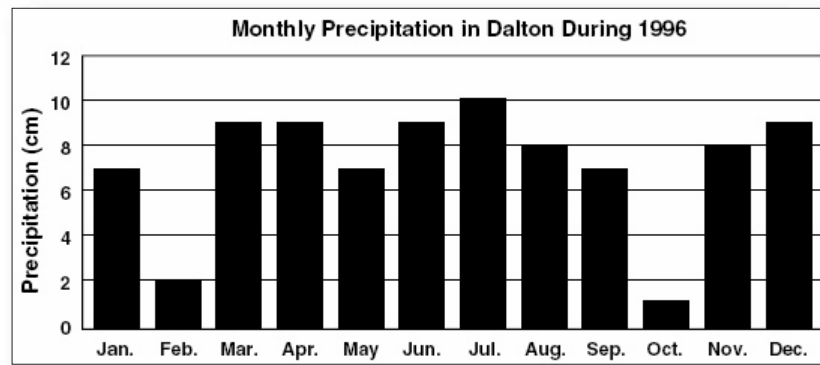
General goal The aim of the WASL is to test students' proficiency in the following:

- basic mathematical concepts and procedures
- the processes used to solve mathematical problems
- the thinking skills needed to solve various problems
- mathematical communication skills
- the ability to make connections within mathematics and between mathematics and the real world

MULTIPLE CHOICE > “What was the **median** amount of monthly precipitation in Dalton during 1996?”

WORTH 1 POINT EACH, these questions require the simple application of concepts or procedures, geometry, measurement, probability, statistics and algebraic concepts and procedures. Questions will assume a knowledge of vocabulary, but do not include specific vocabulary questions.

- A. 7 cm
- B. 8 cm
- C. 9 cm
- D. 10 cm



The graph shows the approximate amount of precipitation that fell in Dalton each month during 1996.

The correct answer is B.

SHORT ANSWER >

WORTH 2 POINTS, these questions test the student's ability to apply simple mathematical concepts and procedures, mathematical communication skills and problem-solving and mathematical reasoning. Unless directed to explain their answer in words, students may use graphics, diagrams, equations or any other valid representation to show their work solving problems.

ANSWERS AND SCORES >

Handwritten student response for the fence problem. It shows a diagram of a square with side length 20 ft and perimeter 80 ft. Calculations show area = 400 sq ft. The student then calculates the side length of a square with 4 times the area (1600 sq ft) as 40 ft, and finally calculates the perimeter as 160 ft.

Score: **1 out of 2**

Response shows partial understanding of how changes in dimensions affect area and perimeter by showing computations of the garden area with supporting explanation. The fence length is inaccurately calculated, earning only partial credit.

Handwritten student response for the fence problem. It shows calculations: $80 \div 4 = 20$, $20^2 = 400$, $400 \times 4 = 1600$, $\sqrt{1600} = 40$, and $40 \times 4 = 160$. The student concludes with the total length and area of the new fence.

Score: **2 out of 2**

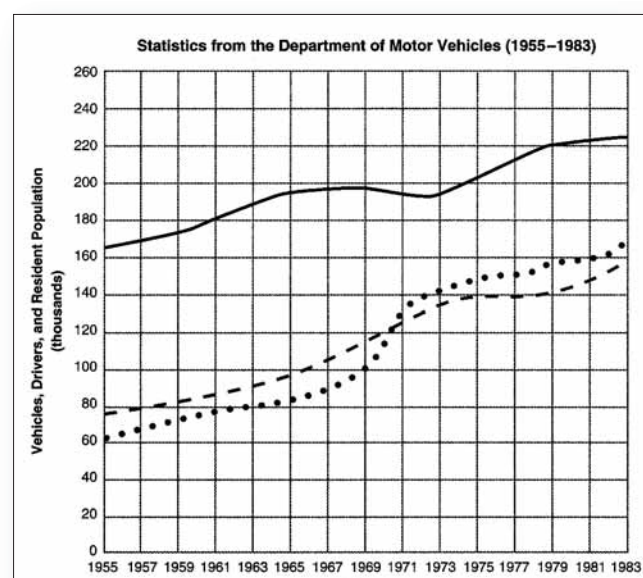
Response shows complete understanding of how changes in dimensions affect area and perimeter. Accurate computations of both fence length and garden area are shown, as well as explanation of how the student solved the problem.

EXTENDED RESPONSE >

WORTH FOUR POINTS, extended-response questions measure problem-solving and reasoning as well as mathematical communication. Skills tested include the ability to create accurate graphs, to extract mathematical information from graphs and text, and to organize and explain mathematical ideas and information.

“Briefly describe the changes that took place for one group during the entire time period shown: **name the group**; describe the changes **using numbers and years** in your description.”

“Describe one way that any two of the three groups changed in relation to one another during a particular period of time: **name the two groups**; give the **time period** you are considering; describe **how the two groups changed in relation to one another** during that particular time period.”



ANSWERS AND SCORES >

Handwritten student response for the extended response question. The student describes the trends for Resident Pop., Licensed Drivers, and Registered Vehicles.

Score: **1 out of 4**

The response shows minimal understanding of extracting, interpreting and describing information from a graph. The first part of the response is too general and incomplete and the student incorrectly states, “there became less drivers through 1969 – 1983” in the second part, so more credit is not possible.

Handwritten student response for the extended response question. The student identifies the groups and time period, and describes the relationship between them.

Score: **4 out of 4**

This response shows a complete understanding of extracting and interpreting information from a graph. Specific groups and dates are identified in the first section and accurate descriptions and details (two groups, time period and correct relationship during the stated period) are offered in the second part, earning the student full credit.

Handwritten student response for the extended response question. The student describes the trends for Licensed Drivers and Registered Vehicles.

Handwritten student response for the extended response question. The student identifies the groups and time period, and describes the relationship between them.