

***2009 Mathematics  
Standards of Learning***

**PLAIN ENGLISH  
MATHEMATICS TESTS**

**Information**

## What is a Plain English Standards of Learning (SOL) Mathematics Test?

Plain English versions of the grades 3-8 Mathematics and Algebra I Standards of Learning (SOL) tests contain adaptations on some test items in order to simplify the language. These modifications ensure test items are accessible to eligible Limited English Proficient (LEP) students and to some students with disabilities who have documented significant language impairments. The Plain English versions of the tests have the same rigor, mathematical concepts, and item constructs as the regular SOL Mathematics tests.

## Who should be considered for the Plain English version of the Mathematics SOL test?

- The Plain English Mathematics test is available to certain LEP students for three consecutive years from the date of first use, provided they continue to meet the eligibility criteria. Refer to pages 2 and 14 in the *Limited English Proficient Students: Guidelines for Participation in the Virginia Assessment Program* at this link:

[http://www.doe.virginia.gov/testing/participation/lep\\_guidelines.pdf](http://www.doe.virginia.gov/testing/participation/lep_guidelines.pdf)

For these LEP students, a reduced/simplified language accommodation must be provided routinely during instruction and on classroom assessments.

- The Plain English Mathematics test is available to students with disabilities who demonstrate a need for linguistic simplifications as specified in their Individualized Education Program (IEP) or 504 Management Plan. Typically these students would require specialized reading and/or language instruction and may require reduced/simplified language accommodations in their daily instruction and on classroom assessments. Since the Plain English Mathematics test covers the same content as the regular SOL mathematics test, it is not intended for students with disabilities whose mathematics skills are merely below grade level.

LEP students who are also students with disabilities are frequently referred to as “dually identified.” For “dually identified” students-

- The IEP or 504 Team and the LEP Committee collaboratively determine whether the Plain English test is an appropriate accommodation based on the student’s disability and LEP status.
- The student’s need for the Plain English test must be documented in the student’s IEP or 504 Management Plan and the LEP Student Assessment Participation Plan.

## How are items on Plain English tests adapted?

Many of the items on the Plain English version of an SOL test are exactly the same as they appear on the regular SOL test. When adaptations to an item are applied, the following guidelines are used:

- Unfamiliar contexts may be revised to familiar situations in word problem scenarios. Sometimes the skill may be assessed without the use of context. (This can be done only if the standard does not require the use of a context.)
- Mathematics vocabulary remains in the item when it is construct-relevant, such as when students must know the vocabulary in order to demonstrate mastery of the standard. For example, “Which *polynomial* has a *factor* of...”
- Clear, direct wording is maintained:
  - Sentences may be simplified by avoiding the use of additional descriptive language that is not needed to assess the standard.
  - Complex sentences may be broken into shorter simple sentences.
  - Passive forms of verbs, such as Mary *was given*, are avoided whenever possible; simple present tense or past tense verbs, such as Mary *gives* or Mary *gave* are used.
  - Words with multiple meanings are avoided, when possible, such as the name *Bill*. However, sometimes a word with multiple meanings cannot be avoided, such as *product* and *root*: “What is the *product* of 16 and 24?” and “What is the *root* of...”
  - Consistent terminology is used within test questions.
    - This sample question uses consistent terminology: “Mary ate  $1\frac{1}{2}$  cups of *popcorn* and  $\frac{3}{4}$  cups of *pretzels* after school. What is the total amount of *popcorn and pretzels* Mary ate after school?”
    - This sample question does NOT use consistent terminology: “Mary ate  $1\frac{1}{2}$  cups of *popcorn* and  $\frac{3}{4}$  cups of *pretzels* after school. What is the total amount of *snacks* Mary ate after school?”
  - Idioms or colloquial expressions are avoided.
- Information is presented in a bulleted list when appropriate.

## **Examples of the Regular SOL Item and the Plain English Version**

Examples of SOL items and their Plain English versions are provided in this document. The purpose of these items is to show examples of the adaptations listed in the guidelines above, but not specific content. As such, the examples are from varied grade levels.

**SOL Item (Grade 3)**

**Alex worked for 5 hours raking leaves. How many minutes are equivalent to 5 hours?**

- A** 500 minutes
- B** 300 minutes
- C** 150 minutes
- D** 120 minutes

**Plain English Version (Grade 3)**

**How many minutes are equivalent to 5 hours?**

- A** 500 minutes
- B** 300 minutes
- C** 150 minutes
- D** 120 minutes

### SOL Item (Grade 3)

Franklin began selling lumber in the morning at the time shown on the clock.



He finished selling lumber three hours later. At what time did Franklin finish selling lumber?

- A 8:45 A.M.
- B 9:45 A.M.
- C 10:45 A.M.
- D 11:45 A.M.

### Plain English Version (Grade 3)

Frank started his bike ride at the time shown on the clock.



He finished his bike ride three hours later. At what time did Frank finish his bike ride?

- A 8:45 A.M.
- B 9:45 A.M.
- C 10:45 A.M.
- D 11:45 A.M.

**SOL Item (Grade 4)**

**Which number, when rounded to the nearest hundredth, is equal to 7.59 ?**

- A** 7.595
- B** 7.588
- C** 7.584
- D** 7.549

**Plain English Version (Grade 4)**

**A number rounded to the nearest hundredth is 7.59. Which of these could be the number?**

- A** 7.595
- B** 7.588
- C** 7.584
- D** 7.549

**SOL Item (Grade 5)**

**A set of basketball uniforms contains only odd-numbered jerseys. Which could be three of the jersey numbers from this set of uniforms?**

- A** 11, 33, 44
- B** 15, 41, 55
- C** 21, 35, 52
- D** 34, 42, 50

**Plain English Version (Grade 5)**

**A set contains only odd numbers. Which could be three of the numbers from this set?**

- A** 11, 33, 44
- B** 15, 41, 55
- C** 21, 35, 52
- D** 34, 42, 50

**SOL Item (Grade 5)**

**A parking garage has 12 levels. Each level has 86 parking spaces. What is the total number of parking spaces in the garage?**

- A** 98
- B** 168
- C** 932
- D** 1,032

**Plain English Version (Grade 5)**

**A building has 12 floors. Each floor has 86 rooms. What is the total number of rooms in the building?**

- A** 98
- B** 168
- C** 932
- D** 1,032

### SOL Item (Grade 6)

Directions: Type your answer in the box.

The regular price of a meal is \$6.75. On Tuesday, the meal is on sale for \$1.00 off the regular price. Sarah bought 4 of these meals on Tuesday. What is the total cost of these 4 meals before tax?

\$ 23

### Plain English Version (Grade 6)

Directions: Type your answer in the box.

Sarah buys 4 meals on Tuesday.

- The regular price of a meal is \$6.75.
- On Tuesday, the meal is on sale for \$1.00 off the regular price.

What is the total cost of these 4 meals before tax?

\$ 23

**SOL Item (Grade 6)**

Ivan created the arithmetic pattern shown.

1, 4, 7, 10

If Ivan continues the pattern, what will be the 7th number in the pattern?

- A 13
- B 16
- C 19
- D 22

**Plain English Version (Grade 6)**

Look at this arithmetic pattern.

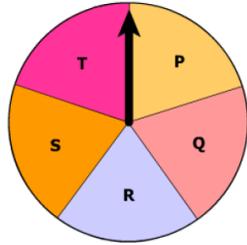
1, 4, 7, 10

What will be the 7th number in the pattern?

- A 13
- B 16
- C 19
- D 22

## SOL Item (Grade 7)

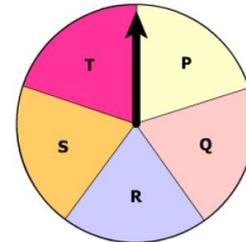
A spinner has 5 sections of equal size labeled P, Q, R, S, and T. The arrow of this spinner was spun 15 times and landed 4 times on the section labeled Q.



Which statement best describes the experimental probability and theoretical probability of the arrow landing on the section labeled Q ?

- A The experimental probability is  $\frac{1}{5}$ , and the theoretical probability is  $\frac{1}{5}$ .
- B The experimental probability is  $\frac{1}{5}$ , and the theoretical probability is  $\frac{4}{15}$ .
- C The experimental probability is  $\frac{4}{15}$ , and the theoretical probability is  $\frac{1}{5}$ .
- D The experimental probability is  $\frac{4}{15}$ , and the theoretical probability is  $\frac{4}{15}$ .

This spinner is divided into 5 equal sections. The arrow of this spinner was spun 15 times. The arrow landed 4 times on the section labeled Q.



Which statement best describes the experimental probability and theoretical probability of the arrow landing on the section labeled Q ?

- A The experimental probability is  $\frac{1}{5}$ , and the theoretical probability is  $\frac{1}{5}$ .
- B The experimental probability is  $\frac{1}{5}$ , and the theoretical probability is  $\frac{4}{15}$ .
- C The experimental probability is  $\frac{4}{15}$ , and the theoretical probability is  $\frac{1}{5}$ .
- D The experimental probability is  $\frac{4}{15}$ , and the theoretical probability is  $\frac{4}{15}$ .

## Plain English Version (Grade 7)

### SOL Item (Grade 8)

A box contains 9 new light bulbs and 6 used light bulbs. Each light bulb is the same size and shape. Meredith will randomly select 2 light bulbs from the box without replacement. What is the probability Meredith will select a new light bulb and then a used light bulb?

- A  $\frac{1}{54}$
- B  $\frac{2}{15}$
- C  $\frac{6}{25}$
- D  $\frac{9}{35}$

### Plain English Version (Grade 8)

A box contains 9 red balls and 6 green balls.

- Each ball is the same size and shape.
- Meredith will randomly select 2 balls without replacement.

What is the probability Meredith will select a red ball and then a green ball?

- A  $\frac{1}{54}$
- B  $\frac{2}{15}$
- C  $\frac{6}{25}$
- D  $\frac{9}{35}$

### SOL Item (Algebra I)

The formula shown can be used to find  $A$ , the amount of money Raul has in his savings account.

$$A = P + Prt$$

Raul wants to find  $r$ , the rate of interest his money earns. Which equation is correctly solved for  $r$  ?

- A  $r = APt$
- B  $r = A - 2Pt$
- C  $r = \frac{A}{2Pt}$
- D  $r = \frac{A - P}{Pt}$

### Plain English Version (Algebra I)

Solve for  $r$ :

$$A = P + Prt$$

- A  $r = APt$
- B  $r = A - 2Pt$
- C  $r = \frac{A}{2Pt}$
- D  $r = \frac{A - P}{Pt}$