Ohio's State Tests

ALGEBRA I
SPRING 2018

This report provides the score for the state test in Algebra I that Jolyne Smith took in spring 2018, explains what the score means, and includes ideas for how your family can help Jolyne improve, if needed.

This report provides the score for the state test in Geometry that John Smith took in spring 2018, explains what the score means, and includes ideas for how your family can help John improve, if needed.

This report provides the score for the state test in Biology that John took in spring 2018, explains what the score means, and includes ideas for how your family can help John improve, if needed.

This report provides the score for the state test in American History that Jane took in spring 2018, explains what the score means, and includes ideas for how your family can help Jane improve, if needed.

This report provides the score for the state test in Integrated Mathematics II that John took in spring 2018, explains what the score means, and includes ideas for how your family can help John improve, if needed.

This report provides the score for the state test in Integrated Mathematics I that Jane took in spring 2018, explains what the score means, and includes ideas for how your family can help Jane improve, if needed.

This report provides the score for the state test in Physical Science that John took in spring 2018, explains what the score means, and includes ideas for how your family can help John improve, if needed.

This report provides the score for the state test in English language arts that John took in spring 2018, explains what the score means, and includes ideas for how your family can help John improve, if needed.

This report provides the score for the state test in U.S. History that John took in spring 2018, explains what the score means, and includes ideas for how your family can help John improve, if needed.

This report provides the score for the state test in U.S. Government that John took in spring 2018, explains what the score means, and includes ideas for how your family can help John improve, if needed.
### Algebra I Assessment

<table>
<thead>
<tr>
<th>Functions</th>
<th>Grade 8 Proficient</th>
<th>Grade 9 Proficient</th>
<th>Grade 10 Proficient</th>
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</thead>
<tbody>
<tr>
<td>Students analyze and compare functions represented</td>
<td>WHAT THE STATE STANDARD MEANS</td>
<td>WHAT THE OBJECTIVE MEANS</td>
<td>WHAT PARENTS CAN DO</td>
</tr>
<tr>
<td>Students can create and solve multiple linear equations and inequalities</td>
<td>With your child, explore how the multiplication of binomials is related to multiplication of two-digit numbers ending in 5.</td>
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### What are your child's strengths and weaknesses in Algebra I?

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### NEXT STEPS

**Jolyne Scored Below Proficient**

Students summarize and interpret one- and two-variable data. They represent the data using box plots, line plots and histograms, two-way tables and scatter plots. They identify and express trends in two-variable data using linear models.

**WHAT THESE RESULTS MEAN**

Your child describes the median and mean of two different data sets but may struggle summarizing categorical data using two-way frequency tables or fitting a linear function to data.

**NEXT STEPS**

With your child, discuss examples of two-variable data that seem strongly correlated and what the variables have in common that leads to an appearance of causation (ice cream and sunscreen sales).

### Modeling and Reasoning

**Jolyne Scored Below Proficient**

Students analyze, make sense of, and apply mathematics to solve real-world problems. They draw, justify, and communicate conclusions or inferences supported by logical and mathematical thinking.

**WHAT THESE RESULTS MEAN**

Your child solves most routine real-world problems mathematically. Your child's thinking relates skills and concepts to mathematical principles.

**NEXT STEPS**

Your child needs to use more mathematical terms, symbols and models to solve and explain real-world problems.
What are your child's strengths and weaknesses in Algebra I?

**Functions**

Students analyze and compare functions represented in different ways. Students interpret and compare linear, quadratic and exponential functions and the situations they model. Students identify and explain important details of functions.

**Jolyne Scored Near Proficient**

**WHAT THESE RESULTS MEAN**

Your child analyzes and compares functions represented in different ways. Your child interprets key features of graphs, compares properties of functions and differentiates between linear and exponential functions from real-world contexts.

**NEXT STEPS**

With your child, use dynamic graphing programs to explore the behavior of linear, quadratic and exponential functions by changing one coefficient or constant to see the effect on graphs.

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**Number, Quantities, Equations and Expressions**

Students create and solve equations and inequalities that describe relationships in real-world problems. They solve equations with one variable and systems of equations with two variables. Students can explain each step.

**Jolyne Scored Near Proficient**

**WHAT THESE RESULTS MEAN**

Your child multiplies binomials and creates simple exponential equations; solves multi-step linear equations, systems of linear equations graphically and quadratic equations by factoring.

**NEXT STEPS**

With your child, explore how the multiplication of binomials is related to multiplication of two-digit numbers, such as patterns in squaring two-digit numbers ending in 5.

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**Statistics**

Students summarize and interpret one- and two-variable data. They represent the data using box plots, line plots and histograms, two-way tables and scatterplots. They identify and explain trends in two-variable data using linear models.

**Jolyne Scored Below Proficient**

**WHAT THESE RESULTS MEAN**

Your child describes the median and mean of two different data sets but may struggle summarizing categorical data using two-way frequency tables or fitting a linear function to data.

**NEXT STEPS**

With your child, discuss examples of two-variable data that seem strongly correlated and what the variables have in common that leads to an appearance of causation (ice cream and sunscreen sales).

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**Modeling and Reasoning**

Students analyze, make sense of, and apply mathematics to solve real-world problems. They draw, justify, and communicate conclusions or inferences supported by logical and mathematical thinking.

**Jolyne Scored Near Proficient**

**WHAT THESE RESULTS MEAN**

Your child solves most routine real-world problems mathematically. Your child's thinking relates skills and concepts to mathematical principles.

**NEXT STEPS**

Your child needs to use more mathematical terms, symbols and models to solve and explain real-world problems.

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Has Jolyne reached proficient in the areas of Algebra I?

<table>
<thead>
<tr>
<th>State Average Score: 717</th>
<th>School Average Score: 725</th>
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<td>District Average Score: 721</td>
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**Advanced** - A student with a score of Advanced can create quadratic and exponential equations and inequalities to solve non-routine problems, and can interpret function notation and data in terms of its context.

**Accelerated** - A student with a score of Accelerated can rewrite exponential expressions in multiple forms appropriate to the context, interpret the graphs of functions in context, and interpret categorical data displays in context.

**Proficient** - A student with a score of Proficient has performed the tasks outlined for the area. Students analyze, make sense of, and apply mathematics to solve real-world problems. They draw, justify, and communicate conclusions or inferences supported by logical and mathematical thinking.

**Near Proficient** - A student with a score of Near Proficient can solve multi-step linear equations, systems of linear equations graphically and quadratic equations by factoring.

**Below Proficient** - A student with a score of Below Proficient can solve simple linear equations and inequalities, graph simple linear functions, and describe the comparison of center (mean, median) of two data sets.

**Limited** - A student with a score of Limited can accurately perform tasks that require the use of mathematical skills and concepts. Other students can explain that the student's score indicates limited mastery of the skills and concepts.

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Jolyne's score is 706. She has performed the tasks outlined for the area. Students analyze, make sense of, and apply mathematics to solve real-world problems. They draw, justify, and communicate conclusions or inferences supported by logical and mathematical thinking.

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**NEXT STEPS**

With your child, discuss examples of two-variable data that seem strongly correlated and what the variables have in common that leads to an appearance of causation (ice cream and sunscreen sales).

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**THE OHIO DEPARTMENT OF EDUCATION**
자주 묻는 질문(FAQ)

오하이오주 시험의 목적은 무엇입니까?
주 성취 시험은 학생들이 오하이오주 학습 기준에 명시되어 있는 지식과 역량을 얼마나 잘 익히고 있는지를 보여줍니다. 이러한 시험은 학생들이 학교, 대학교, 경력개발 및 일생에서 장기적으로 성공할 수 있도록 준비시키고 미래를 지도하고 강화하는 데 도움이 됩니다. 또한 시험 결과를 통해 학생의 학교가 주의 다른 학교들과 비교해서 어느 정도의 성취도를 보이는지 파악할 수 있습니다.

이 시험은 어떻게 개발되었습니까?
시험 개발은 주 시험이 학생의 지식과 능력 평가에 유효하고 적절한 수단임을 보장하기 위한 방대하고 지속적인 과정에 해당합니다.
오하이오주 교육부는 오하이오주 교육자 및 미국연구기관과 협력하여 주 시험을 개발하였습니다. 내용 자문 위원회를 비롯한 공정성 및 감성 위원회가 시험 항목이 정확하고 공정한지, 시험이 구성된 후에는 기준 설계 위원회를 지원하는 또 다른 교육자 그룹이 5가지 성취 수준에 대한 커트라인 점수를 지정하였습니다. 주 교육위원회가 이러한 권장 사항을 승인하였습니다. 오하이오주 시험 포털의 성적표 자료 페이지에서 모든 성취 기준 및 성취 수준 설명을 확인하세요.

성적표에 공백이 있거나 점수가 없는 경우에는 어떻게 합니까?
자녀의 시험이 무효가 된 경우에는 성적표에 점수가 나타나지 않습니다. 또한 본 가이드의 3페이지에 자세히 설명된 학생의 강점과 취약점에 관한 섹션에 “이용 가능한 데이터가 없습니다. 질문이 있는 경우 자녀의 담당교사와 상의하십시오.”라는 메시지가 나타납니다. 이러한 설명에 관해 질문 또는 우려 사항이 있는 경우에는 자녀의 학교에 문의하십시오.

용어해설/정의
내용 영역—내용 영역은 과목이라고도 합니다(예: 영어, 수학, 과학, 사회 등).
오하이오주 학습 표준—오하이오주 학습 표준은 각 학년에서 학생들이 무엇을 반드시 알아야 하고, 무엇을 할 수 있어야 하는지를 정의합니다. 오하이오주 학습 표준에 대한 정보는 오하이오주 교육부 웹사이트 education.ohio.gov에서 확인하실 수 있습니다.
성취 수준—각 과목 영역에는 5가지의 성취 수준이 있습니다. 성취 수준 중 3가지(Advanced, Accelerated, Proficient)는 700점의 “통과” 점수 이상을 기록합니다. 두 가지 성취 수준(Basic, Limited)은 “통과” 점수 미달에 해당합니다. Accelerated 성취 수준은 학생이 대학과 경력개발을 위한 준비를 순조롭게 진행 중임을 나타냅니다. 각 과목 영역에는 이들 성취 수준에 대한 구체적인 설명이 포함되어 있으며, 이를 성취 수준 설명이라고 합니다. 모든 내용 영역에 대한 성취 수준 설명은 오하이오주 시험 포털의 성적표 자료 페이지에서 확인할 수 있습니다.
성적표 카테고리—각 시험에는 3 ~ 5가지의 성적표 카테고리가 포함됩니다. 성적표 카테고리는 각 과목 내에서 시험을 본 주요 영역에 해당합니다. 예를 들어, 통합 수학 I의 영역에는 기하학, 통계, 대수, 숫자 및 수량, 모형화와 추론이 포함됩니다.
성적표 카테고리 지표—시험 결과는 성적표 카테고리의 시험에서 측정된 유사 역량 또는 학습 표준 그룹을 나타냅니다. 예를 들어, 통합 수학 I 내의 보고 범주에는 통계가 있습니다. 보고 범주 내의 통계 또는 다른 영역에 대한 학생의 수행 능력이 지표로 보고됩니다. 이러한 지표는 능숙도 미달, 능숙도 근접, 능숙도 초과로 나뉩니다.
점수—원시 점수(획득한 포인트)는 다른 시험 형태에서 비교할 수 없으므로 보고 용도로 조정된 점수로 변환됩니다. 조정된 점수는 동일 시험의 여러 행정 관리에서 비교될 수 있습니다. 예를 들어, 영어 1 주 시험을 치른 학생의 조정 점수를 작년에 영어 1 주 시험을 치른 학생들 점수와 비교할 수 있습니다. 조정된 점수를 다른 과목과 비교할 수는 없습니다.