| Test Code | Year | Form |
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| 1071 | 23 | 4 |
| Last Revision Date:08/02/2023 |  |  |

## 2023 STAAR Released Blueprint Grade 7 Mathematics Spring, 2023-2024

| SE Descriptions | Reporting Category | TEKS/SE | R or S | No. of Items | \% of <br> Test |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions. The student is expected to apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers. | 2 | 7.3B | R | 2 | 5\% |
| 2. Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d=r t$. | 2 | 7.4A | R | 2 | 5\% |
| 3. Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to calculate unit rates from rates in mathematical and real-world problems. | 2 | 7.4B | S | 1 | 3\% |
| 4. Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to determine the constant of proportionality $(k=y / x)$ within mathematical and real-world problems. | 2 | 7.4C | S | 1 | 3\% |
| 5. Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to solve problems involving ratios, rates, and percents, including multi- step problems involving percent increase and percent decrease, and financial literacy problems. | 2 | 7.4D | R | 2 | 5\% |
| 6. Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to generalize the critical attributes of similarity, including ratios within and between similar shapes. | 3 | 7.5A | S | 1 | 3\% |
| 7. Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to describe $\pi$ as the ratio of the circumference of a circle to its diameter. | 3 | 7.5B | S | 1 | 3\% |
| 8. Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to solve mathematical and real-world problems involving similar shape and scale drawings. | 3 | 7.5C | R | 1 | 3\% |


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| 9. Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to represent sample spaces for simple and compound events using lists and tree diagrams. | 1 | 7.6A | S | 1 | 3\% |
| 10. Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to make predictions and determine solutions using theoretical probability for simple and compound events. | 1 | 7.6D | S | 1 | 3\% |
| 11. Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents. | 4 | 7.6G | R | 2 | 5\% |
| 12. Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to solve problems using qualitative and quantitative predictions and comparisons from simple experiments. | 1 | 7.6H | R | 2 | 5\% |
| 13. Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces. | 1 | 7.61 | R | 2 | 5\% |
| 14. Expressions, equations, and relationships. The student applies mathematical process standards to represent linear relationships using multiple representations. The student is expected to represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y=m x+b$. | 2 | 7.7A | R | 2 | 5\% |
| 15. Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids. | 3 | 7.9A | R | 2 | 5\% |
| 16. Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to determine the circumference and area of circles. | 3 | 7.9B | R | 2 | 5\% |
| 17. Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles. | 3 | 7.9C | R | 2 | 5\% |


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| 18. Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net. | 3 | 7.9D | S | 1 | 3\% |
| 19. Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations and inequalities to represent situations. The student is expected to write one-variable, two-step equations and inequalities to represent constraints or conditions within problems. | 2 | 7.10A | S | 1 | 3\% |
| 20. Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations and inequalities to represent situations. The student is expected to represent solutions for one-variable, two-step equations and inequalities on number lines. | 2 | 7.10B | S | 1 | 3\% |
| 21. Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to model and solve one-variable, two-step equations and inequalities. | 2 | 7.11A | R | 2 | 5\% |
| 22. Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to determine if the given value(s) make(s) one-variable, two-step equations and inequalities true. | 2 | 7.11B | S | 1 | 3\% |
| 23. Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships. | 3 | 7.11C | S | 1 | 3\% |
| 24. Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data. The student is expected to compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads. | 4 | 7.12A | R | 2 | 5\% |
| 25. Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data. The student is expected to compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations. | 4 | 7.12C | S | 1 | 3\% |


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| 26. Personal financial literacy. The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor. The student is expected to identify the components of a personal budget, including income. planned savings for college, retirement, and emergencies. taxes. and fixed and variable expenses, and calculate what percentage each category comprises of the total budget. |  |  | 4 | 7.13B | S | 1 | 3\% |
| Item Types by Point | 1-point questions (MC \& TE Items) | 30 | Total |  | R | 25 | 66\% |
|  | 2-point questions (TE Items) | 8 |  |  | S | 13 | 34\% |
|  | Total | 46 |  |  | All | 38 | 100\% |

Note: $\boldsymbol{R}=$ Readiness Standard, $\mathbf{S}=$ Supporting Standard. Percentages are rounded to the nearest whole number.
Reporting Categories: 1. Numerical Representations and Relationships
2. Computations and Algebraic Relationships
3. Geometry and Measurement
4. Data Analysis and Personal Finance

