## Mathematics Blueprint WVGGSA Grade 8

| WNGSA Blueprint - Grade 8 |  |  |
| :--- | :---: | :---: |
| Domain | Number of Items |  |
| Cluster | Min | Max |

Calculator Total

| EE \& NS | Expressions and Equations \& Number System | 10 | 13 |
| :---: | :---: | :---: | :---: |
|  | Know that there are numbers that are not rational, and approximate them by rational numbers | 0 | 2 |
|  | Work with radicals and integer exponents | 0 | 4 |
|  | Understand connections between proportional relationships, lines, and linear equations | 0 | 4 |
|  | Analyze and solve linear equations and pairs of simultaneous linear equations | 0 | 4 |
| F | Functions | 8 | 10 |
|  | Define, evaluate, and compare functions | 2 | 6 |
|  | Use functions to model relationships between quantities | 2 | 6 |
| G \& SP | Geometry \& Statistics and Probability | 13 | 16 |
|  | Understand congruence and similarity using physical models, transparencies, or geometry software | 1 | 6 |
|  | Understand and apply the Pythagorean Theorem | 0 | 4 |
|  | Solve real-world problems involving volume cylinders, cones, and spheres. | 0 | 2 |
|  | Investigate patterns of association in bivariate data | 1 | 6 |


| DOK Ranges | $\boldsymbol{M i n}$ | Max |
| :---: | :---: | :---: |
| DOK 1 | 5 | 9 |
| DOK 2 | 17 | 22 |
|  | DOK 3 | 5 |


| Mathematical Habits of Mind Sub-Score | Min | Max |
| :---: | :---: | :---: |
| MHM: Modeling and Problem Solving | 9 | 12 |
| MHM: Use Mathematical Reasoning | 8 | 11 |

