## Strand: Ratios and Proportional Relationships (RP) - 7th Grade

## Topic:

- Describe relationships of similar polygons
- Solve problems involving proportions
- Describe the effect of scale factor
- Compare or contrast varying rates of change

| $\begin{array}{\|l\|} \hline \text { Score } \\ 4.0 \end{array}$ | In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught. | Sample Tasks <br> A video cassette recorder uses 2 m of tape in 3 minutes. When set on extended play. $\frac{2}{3}=\frac{n}{240}$ <br> Determine if the proportion is set up correctly. If incorrect, set up correctly then solve. |
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|  | 3.5 $\quad$ In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| $\begin{aligned} & \text { Score } \\ & \mathbf{3 . 0} \end{aligned}$ | The student: <br> - Analyze proportional relationships and use them to solve real-world and mathematical problems <br> The student exhibits no major errors or omissions. | Consistently solve proportions, unit rates, and scale factors $\frac{18}{32}=\frac{m}{16}$ |
|  | 2.5 No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| $\begin{aligned} & \text { Score } \\ & 2.0 \end{aligned}$ | There are no major errors or omissions regarding the simpler details and processes as the student: <br> - recognizes or recalls specific terminology such as: <br> - Ratio, Rate, Unit Rate, Scale Factor, Proportion, Proportional, Equivalent, Quantity, Probability <br> - performs basic processes, such as: <br> - Recognizes equivalent fractions, decimals and percents at the benchmark level <br> - Solve basic problems using ratios and rates <br> However, the student exhibits major errors or omissions regarding the more complex ideas and processes. | - Recognizes vocabulary in when presented with a matching vocabulary to definition. |
|  | 1.5 ${ }^{\text {Partial knowledge of the } 2.0 \text { content but major errors or omissions regarding the } 3.0 \text { content }}$ |  |
| (1.0 | With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |  |
|  | $\mathbf{0 . 5}$ With help, a partial understanding of the 2.0 content but not the 3.0 content |  |
| Score <br> $\mathbf{0 . 0}$ | Even with help, no understanding or skill demonstrated. |  |




- Use coordinate geometry
- Draw/use visual models to solve problems
- Convert within a system of measurement
- Identify equivalent area and volume measurement
- Solve problems involving area, perimeter and/or circumference

In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.
3.5 $\quad$ In addition to score 3.0 performance, in-depth inferences and applications with partial success.

The student:

- Draw, construct, and describe geometric figures and describe the relationship between them
- Solve real-life and mathematical problems involving angle measures, area, surface area, and volume
The student exhibits no major errors or omissions.
$2.5 \mid$ No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content
There are no major errors or omissions regarding the simpler details and processes as the student:
- recognizes or recalls specific terminology such as:
- Triangle, Quadrilateral, Square, Rectangle, Trapezoid, Rhombus, Hexagon, Octagon, Circle, Prism, Cylinder, Arc, Area, Perimeter, Volume, Circumference, Radius, Pi, Diameter, Surface Area, Cubic Unit, Square Unit, Parallel, Similar, Congruent, Supplementary, Complementary, Flip, Reflection, Rotation, Translation, Perpendicular, Scalene, Isosceles, Acute, Obtuse, Right Angle
- performs basic processes, such as:
- Create polygons and designs with rotational symmetry
- Identify complementary and supplementary angles
- Recognized dilations, coordinate systems
- Identifies Isometric representations of map plan
- Identify similar/congruent shapes

However, the student exhibits major errors or omissions regarding the more complex ideas and processes.
$\mathbf{1 . 5} \quad$ Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content
With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.
0.5 $\quad$ With help, a partial understanding of the 2.0 content but not the 3.0 content

Even with help, no understanding or skill demonstrated.

## Sample Tasks

You are the teacher. Did Johnny graph the point correctly? If he did not graph it correctly and explain what he did wrong.

## Graph points on a

 coordinate grid.- Recognizes vocabulary in when presented with a matching vocabulary to definition.

| Strand: Statistics and Probability (7 ${ }^{\text {th }}$ Grade) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Topic: |  |  |  |  |  |
| - Select, create and use graphical representations of data <br> - Find, use and interpret measures of central tendency |  |  | - Compute the probability of an event <br> - Use graphical data to represent differences between samples |  |  |
| $\begin{array}{\|l\|} \hline \text { Score } \\ 4.0 \end{array}$ | In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught. |  |  | Sample Tasks |  |
|  |  |  |  | Error Analysis Each day your tennis team practices for at least one hour and for at most five hours. Your teammate does the calculation shown. What mistake does your teammate make? | $\begin{aligned} & \text { Times (hours): } 1,3,4,5,3 \\ & \text { Mean: } 1+3+4+5+3 \\ & \text { Mean }=16 \text { hours } \end{aligned}$ |
|  | 3.5 | In addition to score 3.0 performance, in-depth inferences and applica | uccess. |  |  |
| $\begin{array}{\|l\|} \hline \text { Score } \\ \mathbf{3 . 0} \\ \hline \end{array}$ | The student: <br> - Use random sampling to draw inferences about one or more populations <br> - Investigate chance processes and develop, use, and evaluate probability models <br> The student exhibits no major errors or omissions. |  |  | - Coin Toss: What is the that is tossed 100 times - $1: 2,1 / 2,50 \%$ | probability of a coin landing on heads? |
|  | 2.5 No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Score } \\ \mathbf{2 . 0} \end{array}$ | There are no major errors or omissions regarding the simpler details and processes as the student: <br> - recognizes or recalls specific terminology such as: <br> - Statistics, Probability, Stem \& Leaf, Box-and-whisker, bar graph, circle graph, line graph, Measures of central tendency, mean, median, mode, range, greatest, least <br> - performs basic processes, such as: <br> - Interpret circle graphs <br> - Draw a graph from a set of data <br> However, the student exhibits major errors or omissions regarding the more complex ideas and processes. |  |  | - Recognizes vocabulary with a matching vocabu | when presented ary to definition. |
|  | 1.5 | Partial knowledge of the 2.0 content but major errors or omissions reg | ontent |  |  |
| $\begin{array}{\|l} \hline \text { Score } \\ 1.0 \\ \hline \end{array}$ | With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |  |  |  |  |
|  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Score } \\ \mathbf{0 . 0} \\ \hline \end{array}$ | Even with help, no understanding or skill demonstrated. |  |  |  |  |

