**SYMMETRY AND SURFACE AREA**

*Learning Contract*

Name: Start Date:

**SS 9.4 – Transformations**

**I can:**

* Find lines of symmetry (vertical, horizontal, and oblique).
* Draw a 2D shape if I’m given half the shape along a line of symmetry.
* Decide if a shape has rotational symmetry.
* I can find the order and rotation of a shape with rotational symmetry
  + I can do this for tessellations too.
* I can identify and draw transformations on a Cartesian plane, including rotation symmetry and line symmetry.

**SS 9.2- Surface Area of Prisms and 3-D Objects**

**I can:**

* Find the surface area of rectangular prisms, cylinders, and triangular prisms.
* Find the overlap in a composite 3D object and adjust the surface area formula.
* Find the surface area of composite 3D objects.
* Solve problems using surface area of 3D objects.

**Assessment of Skill Checks / Tasks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| No understanding  evident. | Incorrect mathematical  processes used. | Some understanding of  concept. Some correct mathematical processes used. Major error causes incorrect answer. | Correct mathematical  processes used. Minor error causes incorrect answer. | Correct mathematical  processes used. Correct answer. |

**Lessons and Skills**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lesson # (Skills) | Topic | Assignment | Due Date | Skill Check |
| 1.1 - 1 | Symmetry and Lines of Symmetry | p. 12 # 4, 5, 6ace | Oct. 14 | Oct. 15 |
| 1.1 – 2 | Translations and Completing Symmetrical Drawings | p. 12 # 7 – 9 | Oct. 14 | Oct. 15 |
| 1.1 - 3 | Reflections | p. 13 #12, 15, 19, 20 | Oct. 14 | Oct. 15 |
| 1.2 – 1 | Order and Angle of Rotation | p. 21 # 4, 5 | Oct. 15 | Oct. 22 |
| 1.2 – 2 | Lines of Symmetry and Rotation Symmetry | p. 21 # 6, 7, 13, 14, 23a | Oct. 17 | Oct. 22 |
| 1.2 - 3 | Tessellations | p. 22 # 9, 11  + Tessellation Activity | Oct. 20 | Oct. 22 |
| 1.2 – 4 | Rotation Symmetry on the Coordinate Grid | p. 23 # 12, 16 | Oct. 21 | Oct. 22 |
| 1.3 – 1 | Metric Conversions | Conversions Worksheet | Oct. 22 | Oct. 27 |
| 1.3 – 2 | Net Diagrams and Surface Area Review | N/A | N/A | Oct. 27 |
| 1.3 – 3 | Surface Area of Prisms | Surface Area Worksheet | Oct. 23 | Oct. 27 |
| 1.3 – 4 | Surface Area of Composite Shapes | p. 33 # 12 – 15, 18, 23 | Oct. 27 | Oct. 27 |
| Review |  | p. 36 #7, 9, 10, 13 – 17  Practice Test (Extra) | Oct. 29 | Exam |

Important Dates:

* Skill Check (1.1)
* Skill Check (1.2) -
* Skill Check (1.3) -
* Review Days – Oct. 27, 28
* Exam – Oct. 29