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| **Determining Area** | | | |
| Understands area as an attribute of 2-D shapes that can be measured and compared.    *A* = *b × h*  *A* = 12 m × 7 m  *A* = 84 m2  “I determined the area of the rectangle by multiplying the length of the base by the height.” | Determines area by decomposing shapes into smaller shapes, then adding their areas.    “I decomposed the trapezoid into a rectangle and 2 triangles.  Area of rectangle:  4 cm × 5 cm= 20 cm2  Area of each triangle:  3 cm × 5 cm ÷ 2 = 7.5 cm2.  Area of trapezoid:  20 cm2 + 7.5 cm2 + 7.5 cm2  = 35 cm2.” | Determines area by composing and decomposing shapes into shapes with known area formulas.      “I doubled the trapezoid to make a parallelogram.  I know the area of the trapezoid is one-half the area of the parallelogram: (13 + 7) × 10 ÷ 2  = 20 × 10 ÷ 2 = 100. The area of the trapezoid is 100 cm2.” | Flexibly composes/decomposes composite polygons and irregular shapes to solve problems    A garden is shaped like a rhombus. The perimeter of the garden is 60 m. The height of the rhombus is 11 m. What is the area of the garden?  “Side length of rhombus:  60 m ÷ 4 = 15 m. A rhombus is a parallelogram with all sides equal. So, to find the area of the rhombus,  I use this formula:  *A = b × h*; 15 m × 11 m = 165 m2. The area of the garden is 165 m2.” |
| **Observations/Documentation** | | | |
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| **Using Nets to Determine Surface Area of Prisms and Pyramids** | | | |
| Uses nets to calculate surface area by adding the partial areas.    “I added the partial areas: | Uses net to show relationship between areas of faces and surface area of prism/pyramid. | Determines surface area by visualizing net and adding the areas of its faces. | Flexibly solves surface area problems by adding the areas  of 2-D faces.    Which box would need less wrapping paper? |
| **Observations/Documentation** | | | |
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