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| **Solving Problems Involving Composite 3-D Objects** |
| Decomposes a composite object into known objectsThe house (without the chimney) is made up of a rectangular prism and a triangular prism. | Applies decomposition to determine the volume of a composite objectVolume of rectangular prism: 45 × 17 × 20 = 15 300Volume of triangular prism: (45 × 18 ÷ 2) × 17 = 6885Volume of composite object:  15 300 cm3 + 6885 cm3 = 22 185 cm3 | Applies decomposition to determine the surface area of a composite objectSurface area of rectangular prism:  45 × 17 + 2(45 × 20) + 2(17 × 20) = 3245Surface area of triangular prism: 2(45 × 18 ÷ 2) + 2(29 × 17) = 1796Surface area of composite object: 3245 cm2 + 1796 cm2 = 5041 cm2 | Solves problems involving surface area or volume of composite objects A pastry chef is creating a cake in the shape of a cylinder on top of a rectangular prism. What is the volume of the cake?Volume of rectangular prism: 25 × 14 × 21 = 7350Volume of cylinder: ($π$ × 7 × 7) × 14 ≈ 2154.04Volume of cake:  7350 cm3 + 2154.04 cm3 = 9504.04 cm3 |

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| **Observations/Documentation** |
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