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| **Determining the Surface Area of Prisms and Cylinders** |
| Uses nets to calculate surface area by adding the partial areas  I added the partial areas. Area of rectangle: 7 cm × 4 cm = 28 cm2Area of 4 rectangles: 4 × 28 cm2 = 112 cm2Area of square: 4 cm × 4 cm = 16 cm2Area of 2 squares:2 × 16 cm2 = 32 cm2Surface area of right prism: 112 cm2 + 32 cm2 = 144 cm2 | Uses nets to show relationship between areas of faces and surface area of right prisms and cylindersSurface area of right triangular prism= area of 2 congruent triangles +  area of 2 congruent rectangles +  area of third rectangle= 2(2.4 × 1.6 ÷ 2) + 2(3.2 × 2)  + 3.2 × 2.4= 3.84 + 12.8 + 7.68= 24.32The surface area is 24.32 m2. | Determines surface area by visualizing net and adding the areas of its facesSurface area of right cylinder= area of curved surface + area of  2 congruent circles= $π$*dh* + 2$π$*r*2≈ 3.14 × 10 × 17 + 2 × 3.14 × 52= 533.8 + 78.5= 612.3The surface area is about 612.3 cm2. | Solves problems involving surface area of right prisms or cylindersThe dimensions of a rectangular gift box are 8 cm by 7 cm by 9 cm. How much wrapping paper is needed for this gift?Surface area of right rectangular prism= 2(8 × 7) + 2(8 × 9) + 2(7 × 9)= 112 + 144 + 126= 382The surface area is 382 cm2. You would need 382 cm2 of wrapping paper without overlap. |
| **Observations/Documentation** |
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