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| **Determining the Surface Area of Prisms** | | | |
| Uses nets to calculate surface area by adding the partial areas    I added the partial areas.  Area of rectangle:  7 cm × 4 cm = 28 cm2  Area of 4 rectangles:  4 × 28 cm2 = 112 cm2  Area of square:  4 cm × 4 cm = 16 cm2  Area of 2 squares:  2 × 16 cm2 = 32 cm2  Surface 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    Surface 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  = 24.32  The surface area is 24.32 m2. | Determines surface area by visualizing net and adding the areas of its faces  The prism has 2 congruent square bases and 4 congruent rectangular faces. Convert 1 m to 100 cm. Surface are of rectangular prism = 2(20 × 20) + 4(20 × 100) = 800 + 8000  = 8800 The surface area is 8800 cm2. | Solves problems involving surface area of right prisms  The 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  = 382  The surface area is 382 cm2. You would need 382 cm2 of wrapping paper without overlap. |
| **Observations/Documentation** | | | |
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