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| **Determining the Volume of Prisms and Cylinders** | | | |
| Understands that the volume of a right prism is the area of its base times height    The volume of the right triangular prism is  20 cm × 8 cm = 160 cm3. | Determines the volume of a right cylinder    area of base:  × *r*2 ≈ 3.14 × 52  = 78.5  The area of the base is  about 78.5 cm2. Volume:  *A* × *h* ≈ 78.5 × 8  = 628  The volume is about 628 cm3. | Understands that orientation of a right prism or right cylinder does not affect its volume    The cylinders have the same volume because they have the same radius and height. | Determines a missing dimension of a right prism or right cylinder    What is the approximate height of the cylinder?  Volume:   *V* = *r*2*h*  452 ≈ 3.14 × 62 × *h*  452 = 113.04 × *h*  *h* = 452 ÷ 113.04  *h* ≈ 4  The height is about 4 cm. |
| **Observations/Documentation** | | | |
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