1. **Notes**

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| --- | --- | --- |
| **Volume**: Is the amount of space an object takes**Prisms**BasesHeight BasesHeightThis is a **rectangular prism** because the base is a rectangle This is a **Triangular prism** because the base is a Triangle

|  |
| --- |
| **Formula for Volume of a Prism**  **V** = **BH** |

 Where B=Area of the base based on the shape **\*\*H= The distance between the two bases** **Cylinders radius diameter**

|  |
| --- |
| **V=** $π $**r2h** |

 **Height Height** (**h) is the height between the two circles**$(π=3.14)$**\*\*r= radius starts from center \*\*d= diameter is the length of the line through the center from one edge of the circle to the other: d=2.r** |

1. **EXAMPLES:**

**1-**

 V= BH

Bases

Height =

 \*\*\*B= Area of the rectangle= b.h= 5x6= 30cm2

= **4cm**

 H= 4cm

 5cm **V= 30x4=120cm3**

**6 cm**

 **V= BH**

2- \*\*\*B= Area of the triangle (base) = ½ b.h=**1/2 (6x2)=6cm2**

Bases

Bases

Height

 H=4cm

**2 cm**

= **4cm**

 **V=6x4=24cm3**

 **6 cm**

|  |
| --- |
| **V=** $π $**r2h** |

**Volume of a cylinder:** $π $r2 is the area of the circle$(π=3.14)$3**. \*\*r= radius starts from center**

 5**cm** \*\***h is the height between the two circles**

 **25 cm**

V= $π$ **(5)2.25=625**$π$**=1962.5 cm3**

|  |
| --- |
| **V=** $π $**r2h** |

 **6cm= diameter**

6 cm

8 cm

 **r=d/2 \*\*r= 6cm/2=3cm**

4. V= $π$ **( 3 )2.8=**$72 π$**= 226.08cm3**

\*\*\*\***Video Link that gives more examples and explain the concept if you need it:**

<https://www.youtube.com/watch?v=ju9dCnQoqgY>