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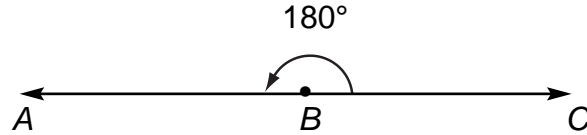
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Facts to Know (cont.)**Supplementary Angles**

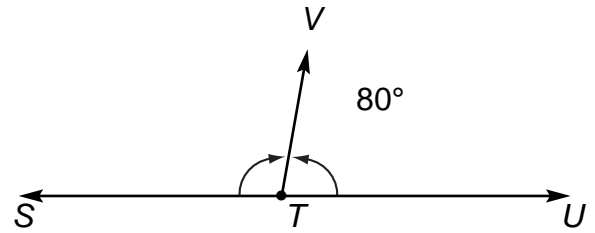
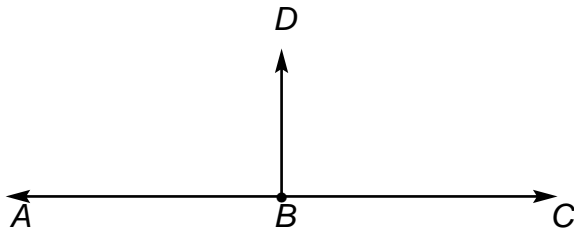
Supplementary angles are two adjacent angles whose sum is always 180° , a straight angle.

$\angle ABC$ is a straight angle.

It measures 180° .



If a line is added at the vertex, adjacent angles are formed. The vertex for $\angle ABD$ and $\angle DBC$ is B. The common side is ray BD . If you added the degrees in $\angle ABD$ and $\angle DBC$, the sum would be 180° , a straight angle. (See below left.)

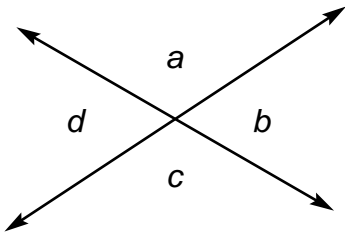


What if you didn't know the number of degrees in one of the supplementary angles? Remember, the sum must equal 180° . Figure the number of degrees in $\angle STV$ (See above right.).

If $\angle STU$ is a straight angle (180°) and $\angle VTU$ is 80° , then the unknown angle, $\angle STV$, is the difference between 180° and 80° . *Answer:* $\angle STV$ is 100° .

Vertical Angles

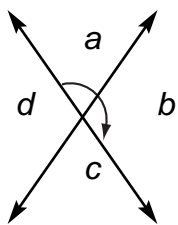
When two lines intersect, four angles are formed. The angles that are across, or opposite, from each other are called *vertical angles*. Vertical angles are equal to each other.



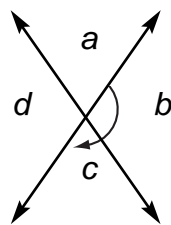
$\angle a$ and $\angle c$ are vertical angles, so they are equal to each other.

$\angle d$ and $\angle b$ are vertical angles, so they are equal to each other, too.

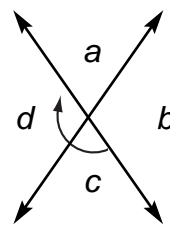
When two straight lines intersect, they make four pairs of supplementary angles.



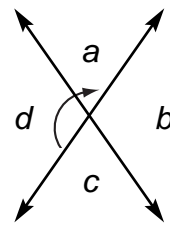
$$\angle a + \angle b = 180^\circ$$



$$\angle b + \angle c = 180^\circ$$



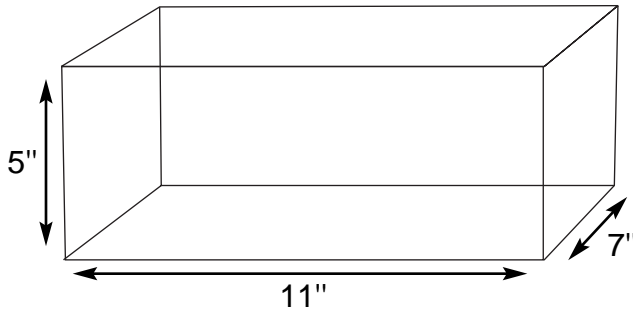
$$\angle c + \angle d = 180^\circ$$



$$\angle d + \angle a = 180^\circ$$

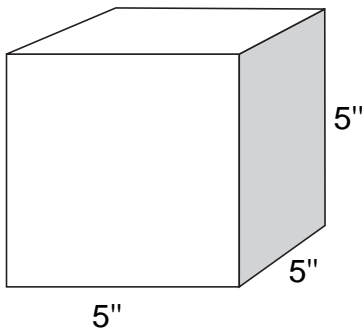
Directions: Use the formulae in this unit to answer the questions.

1. What is the volume of this rectangular solid?



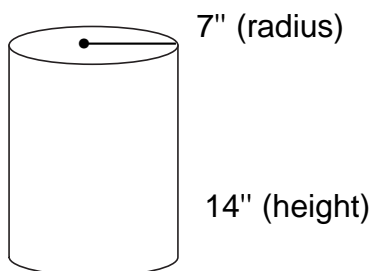
Volume = _____

2. What is the volume of this cube?



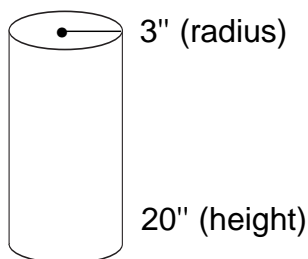
Volume = _____

3. What is the volume of this cylinder? (Round to the nearest inch.)



Volume = _____

4. What is the volume of this cylinder? (Round to the nearest inch.)



Volume = _____