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| |  | | --- | | **Practice with  Volume and Surface Area** [**Topic Index**](http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/indexAS2.htm)**|**[**Algebra Index**](http://www.regentsprep.org/Regents/math/ALGEBRA/math-ALGEBRA.htm)**|**[**Regents Exam Prep Center**](http://regentsprep.org/) | |

**Answer the following questions dealing with solids.    
Grab your calculator.**

Answers use http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/PracSo6b.gif= 3.141592654, the full calculator entry on the TI-83+/84+.

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **1**. | http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/can_.gif | Soda is sold in aluminum cans that measure 6 inches in height and 2 inches in diameter.  How many cubic inches of soda are contained in a full can? (Round answer to the *nearest tenth of a cubic inch*.) |  | **Choose:**  Top of Form   12.0   18.8  24.0  75.4  Bottom of Form | |  | Top of Form    Bottom of Form | | | | |

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| |  |  |  | | --- | --- | --- | | **2**. | http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/beds.gif  Pine bark mulch 6 inches deep is to be spread in each of the beds shown above.  Mulch is sold by the cubic yard.  To the *nearest* *cubic yard*, how much mulch will need to be purchased. | **Choose:**  Top of Form   5   7   16   27  Bottom of Form | | http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/ag00142_.gif | |  | Top of Form    Bottom of Form | | |

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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **9**. | When buying a room air conditioner, it is important to purchase a unit that is neither too big nor too small for the room.  If the unit is too large, it will cool too quickly and will not remove humidity from the air, thus wasting money and energy.  If the unit is too small, it will run continually without ever cooling to the desired temperature, again wasting energy and money.  **a.)** Find the total cubic feet of living space for the bedroom below. The ceiling is 7 feet high.  **b.)** Which of these 3 air conditioning models would be the best purchase for this bedroom? Model A:  for rooms 900 to 1100 cubic feet Model B:  for rooms 1100 to 1300 cubic feet Model C:  for rooms 1300 to 1500 cubic feet    |  |  | | --- | --- | | http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/bedroom.gif | http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/air.gif | |  | **Choose: a.**  Top of Form   924  1124   1176   1476  Bottom of Form  **b.**  Top of Form   A   B   C  Bottom of Form | |  | Top of Form    Bottom of Form | | | |

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| |  |  |  |  | | --- | --- | --- | --- | | **10**. | http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/redbox2.jpg | A box is to be wrapped in a shiny red decorative paper.  The box  is 9 inches long, 5 inches wide, and 4 inches high. | **Choose: a)**  Top of Form  112 sq. in. 180 sq. in.   202 sq. in. 260 sq, in.  Bottom of Form | |  | a.)  What is the minimum amount of decorative paper needed to         cover the box?  b.)  If the box contains confetti, how many cubic inches of       confetti are needed to fill the box? | | **Choose: b)**  Top of Form  112 cu. in. 180 cu. in.   202 cu. in. 260 cu. in.  Bottom of Form | |  | Top of Form    Bottom of Form | | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **11**. | http://www.regentsprep.org/Regents/math/ALGEBRA/AS2/PracSo17.gif | A cylindrical container has a diameter of 12 inches and a height of 15 inches, as illustrated in the diagram.  What is the volume of this container to the *nearest tenth of a cubic inch*? |  | **Choose:**  Top of Form   6,785.8   4,241.2  2,160.0  1,696.5  Bottom of Form | |  | Top of Form  Bottom of Form | | | | |