

## Is It Reasonable?

**Reasonableness**

1. Ron has an aquarium that is 18 in. by 10 in. by 20 in. He has a bucket with a radius of 5 in. and a height of 12 in. Is it reasonable for Ron to carry a bucket full of water 6 times in order to fill up the aquarium?  

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2. Martha is making a dessert. After she cooks it in a pot that is 8 in. in height with a radius of 4 in., she will transfer it to a rectangular dish. If the dimensions of the rectangular dish are 3 in. high by 14 in. long, and 8 in. wide, is it reasonable for Martha to be able to transfer the dessert from the pot to the rectangular dish?  

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3. Charlotte keeps her beads in a cylindrical jar that is 12 in. tall and 6 in. in diameter. She would like to use her jar for another purpose. Sheila offered her a box that is  $280 \text{ in}^3$ . Can Charlotte put all of her beads in the box?  

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4. Asha needs to collect sand. She has a box that is 5 cm by 5 cm by 5 cm. Does she need to fill the box more than three times to collect  $375 \text{ cm}^3$  of sand?  

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5. José is repotting his fern. It is in a cylindrical pot that is 8 in. tall and 6 in. in diameter. He wants to put it in a container that is twice the volume of the cylindrical pot. Is a cube-shaped container that measures 6 in. by 6 in. by 6 in. the right size?  

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6. Jessi is making frozen yogurt shakes. She adds 1 full cylindrical container of frozen yogurt that is 15 cm tall and 10 cm in diameter and 2 full cylindrical containers of pineapple juice that are each 12 cm tall with a diameter of 6 cm. Will all of the ingredients fit into a cylindrical blender that is 30 cm tall with a base that is 14 cm in diameter?  

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