

## Lessons 23-26 Problem Set for Grade 7

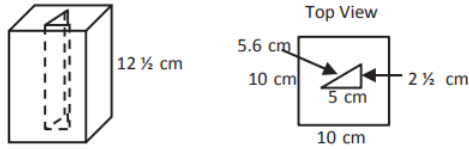
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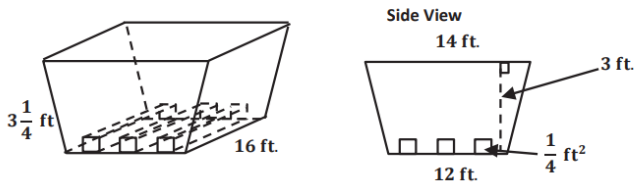
Problem Set

1. A child's toy is constructed by cutting a right triangular prism out of a right rectangular prism.



- Calculate the volume of the rectangular prism.
- Calculate the volume of the triangular prism.
- Calculate the volume of the material remaining in the rectangular prism.

2. A landscape designer is constructing a flower bed in the shape of a right trapezoidal prism. He needs to run three identical square prisms through the bed for drainage.



- What is the volume of the bed without the drainage pipes?
- What is the total volume of the three drainage pipes?
- What is the volume of soil if the planter is filled to  $\frac{3}{4}$  of its total capacity with the pipes in place?
- What is the height of the soil? If necessary, round to the nearest tenth.