

## MATH TOPICS ADDRESSED:

- Volume
- Measurement units
- Ratios

# Firewood by the Cord

Scott Brown

Friendly Firewood Co. is delivering a pickup truckload of wood to a customer. Wood is measured in *cords*. A cord of stacked firewood traditionally measures

4 ft. high by 4 ft. deep by 8 ft. long.

When the wood is properly stacked, the volume of a cord is

$128 \text{ ft.}^3$  ( $4 \text{ ft.} \times 4 \text{ ft.} \times 8 \text{ ft.}$ ).

1. Friendly Firewood Co. tells the customer that the amount of wood in the truck is approximately  $\frac{3}{4}$  cord. What is the volume (in cubic feet) of  $\frac{3}{4}$  cord of stacked firewood?

2. Estimate the volume of the loosely piled firewood in the back of a truck with a bed that is

8 ft. long  $\times$  5 ft. wide  $\times$  1.5 ft. deep. Show your strategy. (A sketch may help.)

3. Explain whether the information communicated by the driver is accurate.

Several states have laws regarding accurate firewood measurement. In Minnesota, for example, a full cord of firewood is “175 cubic feet when thrown irregularly and loosely into a conveyance for delivery” (Minnesota Statutes 2010).

4. Given this fact, approximately what fraction of a cord is the loosely piled wood in the pickup truck?

5. How do you explain the difference between this estimate and your estimate in problem 2?



Wood.” <https://www.revisor.mn.gov/statutes/?id=239.33>.

Edited by **Erik Tillema**, [etillema@iupui.edu](mailto:etillema@iupui.edu), who teaches at Indiana University in Indianapolis. Readers are encouraged to submit manuscripts through <http://mtms.msubmit.net>.

## BIBLIOGRAPHY

Minnesota Office of the Revisor of Statutes. 2010. “2010 Minnesota Statutes, 239.33 Standard Measurements of

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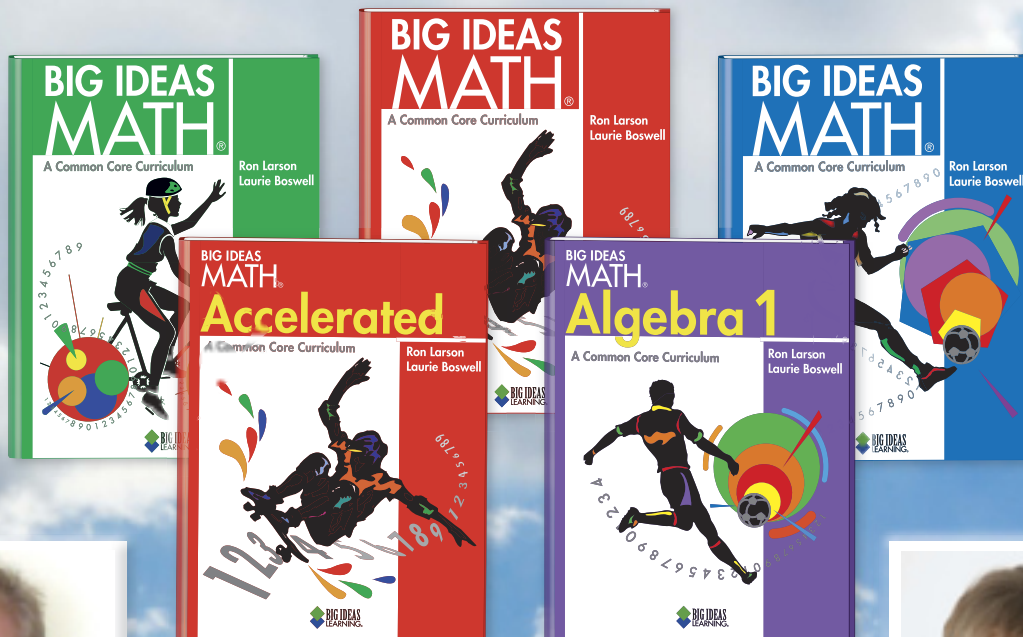


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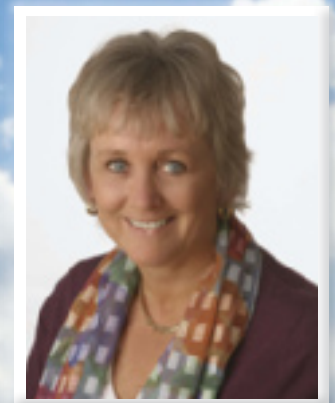
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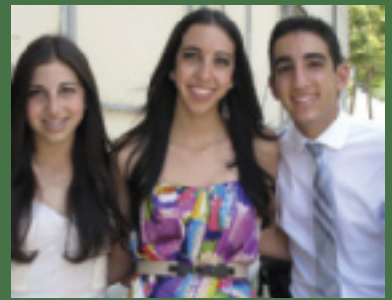
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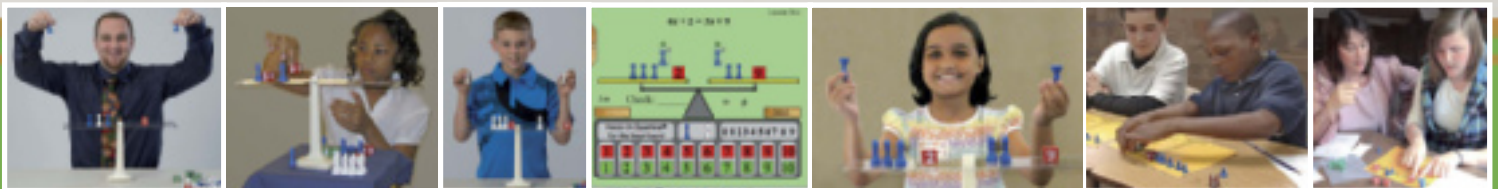
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