

Math Mondays! January 6, 2025

Winter Storms

The first major winter storm is hitting the U.S. between Saturday January 5th through Tuesday January 7th. Parts of the country are anticipating up to 16” of snowfall while other are expecting up to $\frac{3}{4}$ ” of ice.

Snow melt provides 2,715 gallons of water for every 1 acre of land covered by 1 inch of snow. Use this information and challenge your students with these snow related questions.



6th Grade:

Travis lives on a 600-acre farm in rural Indiana. He received 14 inches of snow from this most recent snow. How many gallons of water will be created from the snow melt from this storm alone? Justify your answer.

7th Grade:

Mike and Brandon are brothers, and they are arguing over whose property will produce the most gallons of water from Snow Storm Blair. Table 1 provides information the land and amount of snowfall each brother received.

Table 1: Friends

Name	Acres of Land	Amount of Snowfall
Mike	1 $\frac{1}{4}$	18 inches
Brandon	5	4.5 inches

Mike claims that the water from the snow melt on his land will be greater than the amount of water produced from the snowmelt on Brandon’s land. Do you agree or disagree with Mike’s claim? Justify your decision.

8th Grade:

Rebecca owns a 500-acre farm in the Midwest. The water produced from snowmelt supplies the wells she uses for irrigation in the summer. The farm needs 12.5 million gallons of water for irrigation. Snow Storm Blair produced 8 inches of snow on Rebecca’s farm. Rebecca claims that this storm alone produced nearly 87% of the water she needs for her irrigation. Do you agree or disagree with Rebecca’s claim? Justify your decision.
