# Problem of the Week Problem E <br> <br> The Weightiest Problem 

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Pauline has five rocks, each of a different mass. She weighs the rocks in pairs and records the mass of each pair of rocks. Later, she realizes that she forgot to weigh the rocks individually, but no longer has access to a scale. The ten recorded masses are $728 \mathrm{~g}, 757 \mathrm{~g}, 771 \mathrm{~g}, 783 \mathrm{~g}, 797 \mathrm{~g}, 817 \mathrm{~g}, 826 \mathrm{~g}, 831 \mathrm{~g}, 860 \mathrm{~g}$, and 886 g . Determine the combined mass of all five rocks. Then determine the mass of the lightest rock.


