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|  | **Hay Packing** | |  |  | | --- | --- | | Prob# | packhay | | Author | Traditional | | Date | 2005 | | From | USAICO 2005 Day 2 | |

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| Problem packhay: Hay Packing [Traditional, 2005]  Cows do love their hay. Their latest challenge is storing hay bales  in a certain bin in the barn so they'll have hay throughout FJ's  holiday. They know the bin will hold a maximum volume M (10 <= M  <= 5,000) of hay. They have H (1 <= H <= 200) indivisible hay bales,  each with volume V\_i (1 <= V\_i <= 500).  They're keen to know: what is the maximum total volume of hay they  can stash into the bin? They can choose as many or as few bales as  they wish.  PROBLEM NAME: packhay  INPUT FORMAT:  \* Line 1: Two space-separated integers: M and H  \* Lines 2..H+1: Line i contains a single integer: V\_i  SAMPLE INPUT (file packhay.in):  21 5  2  4  6  8  10  OUTPUT FORMAT:  \* Line 1: The maximum amount of hay that can actually be stored in the  bin  SAMPLE OUTPUT (file packhay.out):  20  OUTPUT DETAILS:  All the hay bale sizes are even, so it's unlikely that 21 can be achieved |

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