Day 0: Weighted Mean


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Terms you'll find helpful in completing today's challenge are outlined below.

Weighted Mean

Given a discrete set of numbers, X, and a corresponding set of weights, W, the *weighted mean* is calculated as follows:

$m_w = \frac{\sum_{i=1}^{n}(x_i \times w_i)}{\sum_{i=1}^{n} w_i}$, where x_i and w_i are the respective i^{th} corresponding elements of X and W.

For example, if $X = \{1, 3, 5\}$ and $W = \{2, 4, 6\}$, our weighted mean would be:

$$m_w = \frac{(1 \times 2) + (3 \times 4) + (5 \times 6)}{2 + 4 + 6} = \frac{2 + 12 + 30}{12} = 3.\overline{66}$$

If we wanted to round this to a scale of 1 decimal place, our result would be 3.7.