Weighted Scores Analysis

# Scenario 1: Mixed Rescaled Scores (Simple Avg = -0.0625)

## Easy Setting (k=1, x0=0.3) - Agg. Score: -0.289

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field | Case A1 | Case A2 | Case A3 | Case A4 | SUMS |
| Score (s) | +1.0 | -0.5 | +0.25 | -1.0 |  |
| Weight Calc (Easy) | `1/(1+e^(1\*(1-0.3)))` | `1/(1+e^(1\*(-0.5-0.3)))` | `1/(1+e^(1\*(0.25-0.3)))` | `1/(1+e^(1\*(-1-0.3)))` |  |
| Weight (Easy) | 0.332 | 0.690 | 0.512 | 0.786 | 2.320 |
| Contrib. (Easy) | 0.332 | -0.345 | 0.128 | -0.786 | -0.671 |

## Medium Setting (k=2, x0=0) - Agg. Score: -0.490

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field | Case A1 | Case A2 | Case A3 | Case A4 | SUMS |
| Score (s) | +1.0 | -0.5 | +0.25 | -1.0 |  |
| Weight Calc (Med) | `1/(1+e^(2\*(1-0)))` | `1/(1+e^(2\*(-0.5-0)))` | `1/(1+e^(2\*(0.25-0)))` | `1/(1+e^(2\*(-1-0)))` |  |
| Weight (Med) | 0.119 | 0.731 | 0.378 | 0.881 | 2.109 |
| Contrib. (Med) | 0.119 | -0.366 | 0.094 | -0.881 | -1.034 |

## Hard Setting (k=3, x0=0) - Agg. Score: -0.577

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field | Case A1 | Case A2 | Case A3 | Case A4 | SUMS |
| Score (s) | +1.0 | -0.5 | +0.25 | -1.0 |  |
| Weight Calc (Hard) | `1/(1+e^(3\*(1-0)))` | `1/(1+e^(3\*(-0.5-0)))` | `1/(1+e^(3\*(0.25-0)))` | `1/(1+e^(3\*(-1-0)))` |  |
| Weight (Hard) | 0.047 | 0.818 | 0.321 | 0.952 | 2.138 |
| Contrib. (Hard) | 0.047 | -0.409 | 0.080 | -0.952 | -1.234 |