**Supplementary Material**

*S1: List of problems tested under Negative and Neutral Emotion Conditions, in Experiment 1.*

|  |  |
| --- | --- |
| Negative Emotion Condition | Neutral Emotion Condition |
| 37 + 72 | 24 + 81 | 13 + 59 | 13 + 64 | 23 + 81 | 26 + 87 | 13 + 78 | 12 + 86 |
| 41 + 62 | 39 + 72 | 17 + 61 | 18 + 43 | 32 + 76 | 43 + 61 | 17 + 52 | 12 + 87 |
| 48 + 67 | 49 + 67 | 21 + 37 | 18 + 47 | 38 + 71 | 51 + 68 | 17 + 79 | 13 + 68 |
| 58 + 63 | 52 + 69 | 23 + 36 | 19 + 63 | 42 + 83 | 53 + 79 | 18 + 26 | 14 + 28 |
| 63 + 54 | 54 + 62 | 26 + 31 | 34 +18 | 47 + 68 | 57 + 78 | 21 + 63 | 14 + 48 |
| 63 + 89 | 62 + 47 | 38 + 53 | 37 + 48 | 51 + 63 | 58 + 64 | 29 + 64 | 14 + 62 |
| 64 + 72 | 64 + 52 | 41 + 12 | 38 + 27 | 63 + 59 | 64 + 47 | 32 + 16 | 31 + 12 |
| 73 + 61 | 71 + 83 | 46 + 13 | 39 + 47 | 68 + 43 | 68 + 54 | 42 + 19 | 38 + 26 |
| 78 + 36 | 72 + 46 | 49 + 12 | 41 + 23 | 74 + 32 | 68 + 56 | 47 + 28 | 46 + 12 |
| 83 + 34 | 78 + 31 | 49 + 23 | 47 + 29 | 78 + 39 | 69 + 53 | 53 + 24 | 46 + 38 |
| 83 + 48 | 84 + 21 | 61 + 27 | 49 + 32 | 81 + 43 | 73 + 49 | 54 + 32 | 52 + 14 |
| 84 + 78 | 87 + 34 | 67 + 32 | 53 + 31 | 83 + 62 | 74 + 38 | 78 + 21 | 62 + 27 |

*S2: List of problems in Experiments 2 & 3.*

|  |  |  |
| --- | --- | --- |
|  | Negative Emotion Condition | Neutral Emotion Condition |
|   | Easier Problems (*N*=24) | Harder Problems(*N*=24) | Easier Problems (*N*=24) | Harder Problems(*N*=24) |
|  | *Rounding-Down Problems* | *Rounding-Up Problems* |
|  | 14 + 32 | 17 + 32 | 13 + 42 | 16 + 43 |
|  | 12 + 53 | 12 + 57 | 13 + 54 | 16 + 52 |
|  | 21 + 53 | 23 + 46 | 31 + 42 | 21 + 47 |
|  | 24 + 51 | 21 + 57 | 23 + 51 | 13 + 56 |
|  | 23 + 54 | 36 + 42 | 21 + 54 | 16 + 53 |
|  | 24 + 53 | 26 + 53 | 14 + 62 | 12 + 67 |
|  | 42 + 13 | 43 + 16 | 32 + 14 | 32 + 17 |
|  | 54 + 13 | 47 + 21 | 53 + 12 | 46 + 23 |
|  | 42 + 31 | 52 + 16 | 53 + 21 | 57 + 12 |
|  | 51 + 23 | 53 + 16 | 51 + 24 | 42 + 36 |
|  | 54 + 21 | 56 + 13 | 53 + 24 | 57 + 21 |
|  | 62 + 14 | 67 + 12 | 54 + 23 | 53 + 26 |
| *Mean RD Sums* | 70 | 70 | 70 | 70 |
| *Differences in Percent Deviations* | 13.7 | 3.8 | 13.7 | 3.8 |
|  | *12 RU Problems*  | *12 RU Problems*  |
|  | 17 + 36 | 13 + 38 | 36 + 17 | 14 + 37 |
|  | 18 + 39 | 18 + 34 | 16 + 39 | 29 + 34 |
|  | 26 + 37 | 14 + 59 | 18 + 37 | 14 + 58 |
|  | 18 + 56 | 19 + 54 | 27 + 39 | 19 + 53 |
|  | 18 + 67 | 32 + 49 | 19 + 48 | 18 + 63 |
|  | 17 + 69 | 29 + 53 | 26 + 59 | 14 + 69 |
|  | 37 + 18 | 37 + 14 | 39 + 18 | 38 + 13 |
|  | 39 + 16 | 34 + 29 | 37 + 26 | 34 + 18 |
|  | 39 + 27 | 53 + 19 | 56 + 18 | 54 + 19 |
|  | 48 + 19 | 58 + 14 | 38 + 46 | 59 + 14 |
|  | 46 + 38 | 63 + 18 | 67 + 18 | 49 + 32 |
|  | 59 + 26 | 69 + 14 | 69 + 17 | 53 + 29 |
| *Mean RU Sums* | 69 | 70 | 69 | 70 |
| *Differences in Percent Deviations* | 14.9 | 5.8 | 14.9 | 5.8 |
| *Mean Sums* | 69 | 70 | 69 | 70 |
| *Differences in Percent Deviations* | 14.3 | 4.8 | 14.3 | 4.8 |
| Mean Valence  | 4.2 | 4.3 | 2.5 | 2.5 |
| Mean Arousal | 2.3 | 2.3 | 3.7 | 3.7 |