Supplementary Material

S1: List of problems in Experiment 1.

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

Note. For both the emotionally negative and neutral conditions, easier and harder problems were selected taking into account previous findings in arithmetic: (a) half the problems had carry on units (e.g., 54 + 68); (b) the first operand was smaller than the second operand in half the problems, and vice versa; (c) none of the operands had the tens or units digits equal to 0; (d) none of the operands had unit digits equal to 5; (e) none of the pairs of operands had the same ten and unit digits (e.g., 34 + 38, 34 + 54), the same ten and unit digits within the same operand (e.g., 33 + 88), or the same operands (e.g., 31 + 31); (f) none of the problems were the reverse of another problem (i.e., if 72 + 64 was used, 64 + 72 was not used), and (g) a quarter of problems had two even operands (e.g., 86 + 12), two odd operands (e.g., 23 + 49), one even and one odd operand (e.g., 26 + 87), or one odd and one even operand (e.g., 43 + 68).

S2: List of problems in Experiments 2 and 3.

Easier Problems		Harder Problems	
41 x 58	27 x 84	36 x 54	34 x 37
46 x 71	29 x 24	42 x 59	36 x 64
47 x 51	34 x 39	43 x 58	46 x 74
51 x 46	39 x 83	47 x 34	48 x 71
67 x 51	49 x 34	51 x 49	49 x 42
52 x 76	49 x 64	52 x 69	52 x 27
56 x 81	54 x 69	58 x 52	53 x 68
57 x 42	63 x 39	58 x 62	54 x 67
61 x 46	64 x 69	61 x 59	58 x 53
61 x 56	69 x 54	69 x 52	59 x 52
51 x 57	74 x 38	69 x 71	63 x 47
68 x 41	84 x 38	73 x 26	74 x 46

Note. problems were selected with the following constraints: (a) no operands had a 0 unit digit (e.g., 20x63) or a 5 unit digit (e.g., 25x63); (b) no digits were repeated within operands (e.g., 22x63) and no operands were repeated within the same problem (e.g., 22x22); (c) no reverse orders of operands were used (e.g., 24x67 and 67x24); (d) the first operand was larger than the second operand in half the problems, and vice versa; (e) no operand had its closest decade equal to 0, 10, or 100; and (f) problems were randomly presented with the constraint that rounded operands were never the same across two consecutive rounding problems in a given trial (e.g., if one problem was 32 x 67, the next problem could not be 37 x 62).