

Name: _____ Date: _____ Period: _____

Multiplication Decoder

8	5	1	7	3	8	15	3	4								
3	6	12	5	4	4	3	9	13	10	1	7	10				
2	5	11	17				3	1	4	10	13	18	4	16	14	4
“	3	6	12	5	4	4	3	9	13	10	!”	--Audrey Hepburn				

Simplify each of the following using multiplication.

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|-------------------------|--------------------------|-------------------------|
| 1. $(3x + 9)(-2x + 8)$ | 2. $(4x + 6)(3x - 11)$ | 3. $(x - 12)(3x - 6)$ |
| 4. $(-2x - 7)(5x + 8)$ | 5. $(4x + 5)(-3x + 4)$ | 6. $(5x + 1)(6x + 4)$ |
| 7. $(7x - 2)(-x + 3)$ | 8. $(4x - 6)(4x + 6)$ | 9. $(-5x + 4)(2x + 1)$ |
| 10. $(3x + 9)(-2x + 4)$ | 11. $(-4x - 6)(-5x + 7)$ | 12. $(2x + 5)(3x + 8)$ |
| 13. $(x + 9)(3x + 4)$ | 14. $(3x + 6)(5x - 9)$ | 15. $(6x + 8)(-2x - 4)$ |
| 16. $(-x - 5)(3x - 4)$ | 17. $(2x + 2)(3x + 3)$ | 18. $(5x - 9)(9x - 5)$ |

- A. $-3x^2 - 11x + 20$
- B. $-10x^2 + 3x + 4$
- D. $6x^2 + 12x + 6$
- E. $-6x^2 - 6x + 36$
- F. $45x^2 - 106x + 45$
- G. $-12x^2 - 40x - 32$
- H. $-7x^2 + 23x - 6$
- I. $3x^2 - 42x + 72$
- L. $3x^2 + 31x + 36$
- M. $30x^2 + 26x + 4$
- N. $16x^2 - 36$
- O. $-12x^2 + x + 20$
- P. $6x^2 + 31x + 40$
- R. $20x^2 + 2x - 42$
- S. $-10x^2 - 51x - 56$
- T. $-6x^2 + 6x + 72$
- W. $12x^2 - 26x - 66$
- Y. $15x^2 + 3x - 54$