The Weekly Rigor

No. 301 "A mathematician is a machine for turning coffee into theorems." March 28, 2020

10 Problems in Simplifying Expressions Enclosed by Grouping Punctuation

PROBLEMS

Perform the indicated operations so that no parentheses, brackets, or braces remain.

1. $a - [b + (c - d)]$.

2. $a - [b - (c - d)]$.

3. $a - [b - c - (d - e)]$.

4. $2a - [b - (a - 2b)]$.

5. $3a - [b + (2a - b) - (a - b)]$.

6. $7a - \{3a - [4a - (5a - 2a)]\}$.

7. $(6x + 4) - (4x - 2) - (-x - 1)$.

8. $(5x^2 + x + 4) + (-x^2 + 2x + 4) + (-14x^2 - x + 6)$.

9. $-7n^2 - [3n^2 - (-n^2 - n + 4)]$.

10. $-(3n^2 - 2n + 4) - [2n^2 - (n^2 + n + 3)]$.

ANSWERS

1. $a - b - c + d$	2. $a - b + c - d$
3. $a - b + c + d - e$	4. $3a - 3b$
5. $2a - b$	6. $5a$
7. $3x + 7$	8. $-10x^2 + 2x + 14$
9. $-11n^2 - n + 4$	10. $-4n^2 + 3n - 1$