

The Weekly Rigor

No. 299

“A mathematician is a machine for turning coffee into theorems.”

March 14, 2020

10 Problems in Adding Polynomials

PROBLEMS

Add the given polynomials.

1. $2a + 3b$, $5a - 7b$, $a + 9b$, and $3a - 8b$.

2. $2a + 3ab$, $3a - 4ab + 5b$, and $5ab - 7b$.

3. $3x - 5xy$, $7x + 8xy$, $a - 9x - 6xy$, and $4a - 5x + 7xy$.

4. $12ab^2 + 28cx^3$, $-ab^2 + 25cx^3$, $24ab^2 - 23cx^3$, and $-35ab^2 - 17cx^3$.

5. $3ac - 5ax$, $7ac + 6ax$, $5ac - 12ax$, and $9ac + 15ax$.

6. $5ab + 12bc - 7cd$, $9ab - 18bc + 11cd$, and $17ab - 15bc + 13cd$.

7. $3ax - 2b^2c$, $5ax + 7c^3$, $9b^2c - 12c^3$, $8ax + 15c^3$, and $14b^2c - 18c^3$.

8. $a + 2b + 3c$, $2a - b - 2c$, $b - a - c$, and $c - a - b$.

9. $6x^2 + 8x + 4$ and $-7x^2 - 7x - 10$.

10. $15a^2b^2 - ab$ and $-20a^2b^2 - 6ab$.

ANSWERS

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|---------------------------|-------------------------|
| 1. $11a - 3b$ | 2. $5a + 4ab - 2b$ |
| 3. $5a - 4x + 4xy$ | 4. $13cx^3$ |
| 5. $24ac + 4ax$ | 6. $31ab - 21bc + 17cd$ |
| 7. $16ax + 21b^2c - 8c^3$ | 8. $a + b + c$ |
| 9. $-x^2 + x - 6$ | 10. $-5a^2b^2 - 7ab$ |

“Only he who never plays, never loses.”