

# The Weekly Rigor

No. 308

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

May 16, 2020

## 30 Problems in Factoring by Finding the Greatest Common Factor (Part 1)

### PROBLEMS

For each of the following expressions, factor out the greatest common factor.

1.  $18x + 27$ .

2.  $16x - 24$ .

3.  $2ac - 4ab$ .

4.  $2ax + x^2$ .

5.  $ax + a^2x^2$ .

6.  $6a^2b + 9a^3c$ .

7.  $8a^3b^2 - 12ab^4$ .

8.  $2a^3b^2x + 3a^2b^3y$ .

9.  $14ax^2z + 56abx^2$ .

10.  $ac^2 - ba^2c^2 + adc^4$ .

11.  $ax^2y - a^2xy^3 + dx^3y$ .

12.  $20a^3x^3 - 45axy^2$ .

13.  $3x^2 + 6x$ .

14.  $4x^2 - 8x$ .

15.  $9x^4 - 18x^3 + 27x^2$ .

16.  $6x^4 - 18x^3 + 12x^2$ .

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“Only he who never plays, never loses.”

Written and published every Saturday by Richard Shedenhelm

WeeklyRigor@gmail.com

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