

The Weekly Rigor

No. 289

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

January 4, 2020

10 Problems in Transposing the Terms of First-Degree Equations

PROBLEMS

Transpose the known terms to the second member and the unknown terms to the first member.

1. $3x - 2 = x + 4.$

2. $2x + 5 = 11.$

3. $5x + 2 = 3x + 9.$

4. $4x + 6 = 2x + 10.$

5. $5x + 4 - 2x = 10 + x.$

6. $18 - 3x = 5x + 2.$

$$7. 7x + 6 = 5x + 14.$$

$$8. 4x - 17 = 4x + 13 - 6x.$$

$$9. 2x - 12 = 5x - 30.$$

$$10. 6x + 16 = 9x - 5.$$

ANSWERS

| | |
|---------------------------|-----------------------------|
| 1. $3x - x = 4 + 2$ | 2. $2x = 11 - 5$ |
| 3. $5x - 3x = 9 - 2$ | 4. $4x - 2x = 10 - 6$ |
| 5. $5x - 2x - x = 10 - 4$ | 6. $-3x - 5x = 2 - 18$ |
| 7. $7x - 5x = 14 - 6$ | 8. $4x - 4x + 6x = 13 + 17$ |
| 9. $2x - 5x = -30 + 12$ | 10. $6x - 9x = -5 - 16$ |

“Only he who never plays, never loses.”