Name _____ Date _____

Distributive Property: Find the Mistake in Expanding, Factoring and Combining Like Terms

Directions: Each question shows a student's work with exactly one mistake. Choose the step where the first mistake happens.

1. Ana simplified $4(x + 3) + 4(2x + 1)$. Her work is shown.

1. $4x + 12 + 4(2x + 1)$
2. $4x + 12 + 8x + 1$
3. $12x + 13$

Which step has the first mistake?

A. $12x + 13$ B. $4x + 12 + 4(2x + 1)$ C. $4x + 12 + 8x + 1$

2. Marcus expanded and simplified $5 - 3(2x - 4)$. His work is shown.

1. $5 - 6x - 12$
2. $-6x + 5 - 12$
3. $-6x - 7$

In which step did Marcus make his first mistake?

A. $-6x - 7$ B. $5 - 6x - 12$ C. $-6x + 5 - 12$

3. Priya simplified $2(x + 5) + 3x$. Her steps are shown.

1. $2x + 10 + 3x$
2. $2x + 3x + 10$
3. $5x + 10$
4. $15x$

Which step is the first one that is wrong?

A. $5x + 10$ B. $2x + 3x + 10$ C. $15x$ D. $2x + 10 + 3x$

4. Jon factored $10x + 14$. His work is shown.

1. $10x = 5 \times 2x$
2. $14 = 5 \times 3$
3. $10x + 14 = 5(2x + 3)$

Which step contains the first error?

A. $10x + 14 = 5(2x + 3)$ B. $14 = 5 \times 3$ C. $10x = 5 \times 2x$

5. Lila combined like terms in $7x + 9 - x - 4$. Her work is shown.

1. $7x - x + 9 - 4$
2. $7x - x + 5$
3. $7 + 5$
4. 12

Which step is the first incorrect one?

A. $7 + 5$

B. 12

C. $7x - x + 5$

D. $7x - x + 9 - 4$

6. Sam simplified $(1/2)(x + 6) + (1/3)x$. His work is shown.

1. $(1/2)x + 3 + (1/3)x$
2. $(1/2)x + (1/3)x + 3$
3. $(2/5)x + 3$

Find the first step with a mistake.

A. $(2/5)x + 3$

B. $(1/2)x + 3 + (1/3)x$

C. $(1/2)x + (1/3)x + 3$