Combining Like Terms: Worked Answers

Each problem solved the way the lesson does it.

Name: _____ Date: _____

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1 6x + 2x

- Add the coefficients: 6 + 2 = 8. Keep the variable.

Answer: 8x

2 9a − 4a

- Change: 9a + (−4a). Add: 9 + (−4) = 5.

Answer: 5a

3 7 + 3x − 2 + x

- Change and write the invisible 1: 3x + 1x + 7 + (−2).
- Combine like terms.

Answer: 4x + 5

4 5y − 8y

- Change: 5y + (−8y). Add: 5 + (−8) = −3.

Answer: −3y

5 4x + 3 − x − 7

- Change and 1s: 4x + (−1x) + 3 + (−7).
- Combine: 3x + (−4).

Answer: 3x − 4

6 2a + 5b − a + 2b

- Group like terms: 2a + (−1a) = a; 5b + 2b = 7b.

Answer: a + 7b

7 Is $4x + 3 = 7x$? Explain.

- No. $4x$ and 3 are not like terms (one has x, one does not), so they cannot be combined.

Answer: No; $4x + 3$ is already as simple as it gets

8 $\frac{1}{2}m + 3 + \frac{1}{2}m$

- Add the m terms: $\frac{1}{2} + \frac{1}{2} = 1$, so $1m$. Keep the 3.

Answer: $m + 3$