

Algebra Study Guide

Name: _____

Simplify each expression.

1. $9(x - 6)$

2. $20 + 8d$

3. $30p + 5 - 14p + 8$

4. $4(5 + 6k)$

5. $15 + 5d$

6. $4x + 5(x + 6)$

7. $7(5m - 6)$

8. $4(6m - 5)$

9. $17x + 9 - 5x - 7$

10. $8(6 + y)$

11. $12m + 9j - 10m - 7j + 3m$

12. $16k + 2(4 + 5k) - 10k$

13. $8m + 3m + 12 + 2m - 8 - 8m$

14. $6y^2 + y + y + 13$

15. $r + r + 9r - 2$

Identify the expression that is NOT equivalent to the one given.

16. $16y + 20$

- A. $4(4y + 5)$ B. $36y$ C. $20y + 9 - 4y + 11$ D. $5y + 28 - 8 + 7y + 4y$

17. $30 - 24w$

- A. $5(6 - 6w)$ B. $15 + 45w + 15 - 21w$ C. $6(5 - 4w)$ D. $15(2 - 9w)$

Write an algebraic expression for each verbal phrase.

18. The cost of 2 cookies and a \$1.50 soda

19. Three times as many cats as Mark

20. take away 60 from a number z

21. 3 plus a number j

22. a number p decreased by 100

23. product of 50 and a number b

24. 49 divided by a number z

25. 3 less than a number p

2