NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD\_\_\_\_\_\_\_\_ SCORE\_\_\_\_\_\_\_ Unit 2 Review N

Identify the arithmetic property used in simplifying each expression.

1. 2*p* + (3*p* + 2)

(2*p* + 3*p*) + 2

2. 15y + (-15y)

0

3. *cab*

*abc*

Factor the following expressions.

4. 32*x* – 15 5. 24 + 32*x*

6. 6*x* – 9 7. 48 + 24*x*

8. 72 – 18*x* 9. 25*x* + 14

10. 100*x* + 150 11. 130*x* – 13

Simplify the following algebraic expressions.

12. (2 + *g*) 8 13. 4 (*h* – 5*g*) 14. –3 (–7 + 2)

15. 6*x* (*y* – *z*) 16. –3 (2*b* – 2*a*) 17. 

18. 5*x* − 6*x* −*x* 19. 8*a* − 3*a* 5*a* 20. *a* − 4*a* −3*a*

21. 3*a* + 2*a* − 6 5*a* − 6 22. 6*x* + 2*x* − 3 8*x* − 3 23. 5.7*a* − 3 + 2*a* 7*a* − 3

24. 3*x* + 7 − 5*x* −2*x* + 7 25. 6*x* − 3 26. 6*x* − 3*x* − 2

27. (–*x* + 3) + (4*x* – 10)

30. (–9*x* + 1) – (–7*x* + 8)

28. (–7*x* + 1) – (4*x* – 5)

31. (–9*x* – 12) + (*x* – 8)

29. (–9*x* – 12) – (*x* – 8)

32. (5*x* – 1) – (–3*x* + 7)

1. Marty and Mac went to the hockey game. Each boy bought a program for 3 dollars and nachos for *n* dollars. Write an expression that could be used to represent how much money the boys spent altogether.

1. Members of the cooking club would like to learn how to make peach ice cream. There are 14 people in the club. Each member will need to buy 3 peaches and 1 pint of cream to make the ice cream. Peaches cost *x* cents each, and a pint of cream costs 45 cents. Write an expression that could be used to represent the total cost of ingredients for all 14 members of the club. Simplify the expression.

1. Martin’s grandma gave him a $100 gift certificate to his favorite restaurant. Everyday for four days Martin went to the restaurant and bought a drink for $1.19 and fries for *f* dollars. Write an expression for how much money Martin has left on his gift certificate.
2. Juab Junior High School wants to meet its goal of reading 10,000 books in three months. If 7th grade reads *x* number of books every week, 8th grade reads *y* number of books every week, and 9th grade reads *z* number of books every week, write an expression for how many books the school will still need to read after 3 weeks?

NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD\_\_\_\_\_\_\_\_ SCORE\_\_\_\_\_\_\_ Unit 2 Review H

**Name the property shown by each statement.**

1. (3*x* + 2*y*) + *y =* 3*x* + (2*y* + *y*) Answer #1\_\_\_\_\_\_\_
2. 2 + 4 + 6 = 6 + 2 + 4 Answer #2\_\_\_\_\_\_\_
3. (4a)b = 4(ab) Answer #3\_\_\_\_\_\_\_\_\_
4. 4x + (−4x) = 0 Answer #4\_\_\_\_\_\_\_\_\_
5. Circle two expressions that match the following situation. Ooljee goes to the movies with her two friends. They each pay for their own movie ticket at $8.50 each and each buys a soda for *d* dollars. How much money do the girls spend at the theater?

   

**Simplify the following expressions.**

1.  Answer #6\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 20x + t + 0.3t - 14x Answer #7\_\_\_\_\_\_\_\_\_\_\_\_\_
3.  Answer #8\_\_\_\_\_\_\_\_\_\_\_\_\_
4. -4(2x – 3) Answer #9\_\_\_\_\_\_\_\_\_\_\_\_\_
5. ½ (6x – 18) Answer #10\_\_\_\_\_\_\_\_\_\_\_\_\_
6. -8 + 5k – 10 + 2k Answer #11\_\_\_\_\_\_\_\_\_\_\_\_\_
7. -8(*2x +* 8*)*  – (6 – 3*x)* Answer #12\_\_\_\_\_\_\_\_\_\_\_\_\_
8. 19*y* + 5(-10- *y*) Answer #13\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Nick plays on the school basketball team. He scores seven 3-point shots and four 2-point shots in one game. Write an expression to match the situation and tell how many total points did he score in the game?

Expression answer #14\_\_\_\_\_\_\_\_\_\_\_\_\_

Total points answer #14\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write a simplified expression for the perimeter of this triangle.

(2x + 3) in

(2x + 3) in

Answer #15\_\_\_\_\_\_\_\_

(2x) in

1. An airline charges $(2x+6) for a ticket, $(x+1) to check a bag, and $4x for food. Write an expression to represent the total cost of a ticket, checking a bag, and buying food on the plane.

Answer #16\_\_\_\_\_\_\_\_

1. At the Beltway Outlet store, you buy *x* computer games for $17 each and a magazine for $4. Write an expression in simplest form that represents the total amount of money you spend.

Answer #17\_\_\_\_\_\_\_\_

**Factor the following expressions**

1. 90 + 30x

Answer #18\_\_\_\_\_\_\_\_

1. 16xy – 24y

Answer #19\_\_\_\_\_\_\_\_

1. 12x2 + 24 x

Answer #20\_\_\_\_\_\_\_\_