

Extra Practice

Simplify each expression.

21. $4x + 2x + 3x = 9x$

$4x + 2x + 3x = (4x + 2x) + 3x$
 $= 6x + 3x$
 $= 9x$



22. $2x + 8x + 4x =$ _____

23. $7(3x) =$ _____

24. $8y + 4x + 6y =$ _____

25. $4(7x + 5y) =$ _____

26. $6x + 2x =$ _____

Factor each expression.

27. $10x + 15y =$ _____

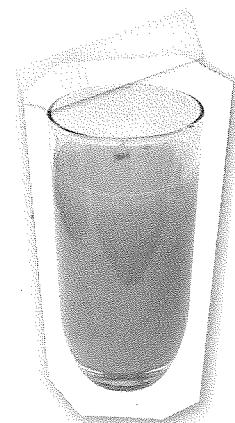
28. $35x + 63y =$ _____

29. **PS Use Math Tools** Four friends went to see a movie. Each ticket cost \$ x . The table shows the prices of several items at the theater. They bought four large pretzels and four bottles of water. Write and simplify an expression that represents the total cost of tickets and snacks or beverages.

Snack or Beverage	Price
large popcorn	\$4
large pretzel	\$3
small soda	\$2
bottle of water	\$2

30. Seven friends have similar cell phone plans. The price of each plan is \$ x . Three of the seven friends pay an extra \$4 per month for unlimited text messaging. Write and simplify an expression that represents the total cost of the seven plans.

31. A set of glassware includes 5 tall glasses and 3 juice glasses. Use t to represent the cost of each tall glass and j to represent the cost of each juice glass. Write and simplify an expression that represents the total of cost of 4 sets.



Identify the terms, like terms, coefficients, and constants in each expression.

32. $4y + 5 + 3y$

33. $2x + 3y + x + 7$

Power Up! Test Practice

34. Use the expression $3n + 5p + 2 + n$.

List all of the terms of the expression.

List the like terms of the expression.

List the coefficients of the expression.

List the constants of the expression.

What is the simplified form of the expression?

35. A shipping company charges x dollars to ship a package that weighs up to 1 pound and an additional fee based on the additional weight of the package.

Write and simplify an expression that represents the total cost of shipping 2 packages that each weigh 0.75 pound, 3 packages that each weigh 2.5 pounds, and 1 package that weighs 4.2 pounds.

Shipping Prices	
Weight	Price (\$)
Up to 1 lb	x
Up to 2 lbs	add \$1.50
Up to 3 lbs	add \$3.00
Up to 4 lbs	add \$4.50
Up to 5 lbs	add \$6.00

Spiral Review

Find the missing number that makes the sentence true.

36. $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{\square}{\square}$

37. $\frac{4}{7} = \frac{2}{7} + \frac{\square}{\square}$

38. $2\frac{5}{9} = 2 + \frac{\square}{\square}$

39. Find the missing number in the pattern below.

14, 21, , 35, 42, ...

40. Soccer balls cost \$18 each. Complete the table and use a pattern to find the cost of 2, 3, and 4 soccer balls.

Number of Soccer Balls	Addition Pattern	Total Cost (\$)
1	18	\$18
2	18 + 18	
3	18 + <input type="text"/> + <input type="text"/>	
4	18 + <input type="text"/> + <input type="text"/> + <input type="text"/>	