Combining Like terms

Launch-6th grade review

Which expression is equivalent to $5y + 2y + 6x + 2y - x$?

A $\quad 5x + 6y$

B $\quad 5x + 7y$

C $\quad 5x + 9y$

D $\quad 7x + 7y$

Micah and three friends bought a total of 4 bags of pretzels and 4 drinks at the snack stand. If a bag of pretzels costs x dollars, and a drink costs y dollars, what expression could you write to show how much the friends spent in all?

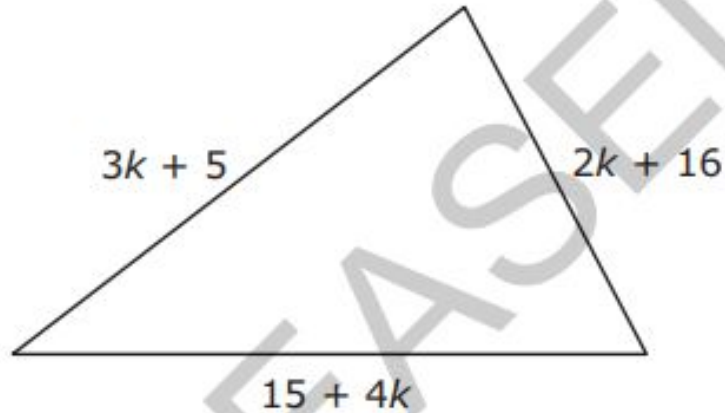**Use the math you already know to solve the problem.**

a. Suppose each friend bought 1 bag of pretzels and 1 drink. Write an expression to show how much they spent in all.
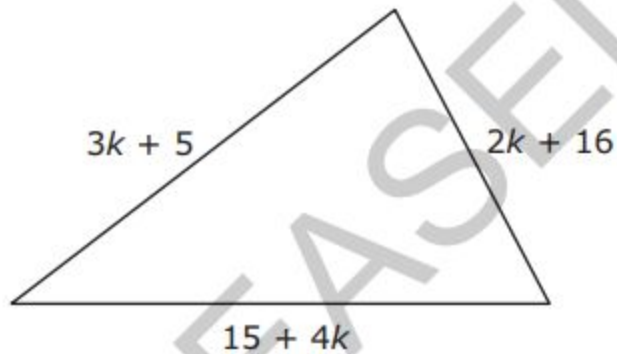
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b. Suppose instead that one friend bought all 4 bags of pretzels and another friend bought all 4 drinks. Write an expression that shows the total cost.

_____

Write an expression to represent the perimeter of the triangle

$3k + 5$

$2k + 16$

$15 + 4k$

Which expression represents the perimeter of the triangle?

$3k + 5$ $2k + 16$

$15 + 4k$

A $9k + 36$

B $10k + 25$

C $20k + 25$

D $24k + 36$

Parts of an expression

3 x + 4

Terms: parts of an expression that are separated by + or - signs

Like terms:
- Terms with the same variable
- Variable with the same exponent
- Coefficients do not have to be the same
- Constants (numbers without variables) are like terms

Like Terms	Unlike terms

To simplify an expression identify then combine like terms
Examples:

1. $5x + 3y - 2 - x + 3$

2. $2x^2 - 4 + 2xy + 2 + xy$

3. $4m - 2n + 3 + 2m - 3 - 3n$

4. The dimensions of a rectangle are divided into two parts. The image is _not_ drawn to scale.

Which expression represents the perimeter of the whole rectangle?

A $4x + 4y$

B $4x + 8y$

C $2x + 2y$

D $2x + 4y$