

Possible Solutions

Which statement is true about all expressions? Justify your thinking.

- a) They contain variables.
- b) They contain only numbers.
- c) They are the same as equations.
- d) They do not include an equal sign.

This is an example of a student describing the difference between expressions and equations verbally. To solve, students need to read each choice and decide if that statement is true about ALL expressions.

The solution is:

- a) Cannot be true because expressions can include variables, but they don't always have to such as 6×5 is an expression without variables.
- b) Cannot be true because expressions can also include variables such as $3x - 2$.
- c) Cannot be true because we know the two are not equivalent.
- d) Is true because we know that expressions are like mathematical "phrases," meaning they are not complete with an equal sign and equivalency such as $3x - 2$ is an expression, but $3x - 2 = 36$ is not an expression, it is an equation.