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Showing your Work: Solutions

puzzle #1

Here are some more problems that have appeared on the internet. Do you see why they are confusing to people?

What are the answers to them if you follow the rules from school?

> **Compute**
>
> **a) 1 + 2x3**
> **b) 6 ÷ 2(1+2)**
> **c) 15 - 1(12 ÷ 4 +1)**

ANSWERS TO PUZZLE 1:
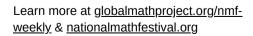
a) It's 1 + 6, which is 7.
(Do multiplications before additions.)

b) This is just like the one in the essay.
It's 6÷2(3), which is 6÷2x3. Computing left to right we get 9.

c) It's 15-1x(3+1) = 15 - 1x4 = 15 - 4 = 11.

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The NMF Weekly is written by mathematician Dr. James Tanton as a resource for friends and fans of the 2021 National Math Festival.

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puzzle #2

Sometimes math puzzles are designed to seem that they are not communicating information well, but they actually are! Can answer this famous puzzle?

One day a woman decides to take a three-mile walk. She starts by heading directly south for one mile, trotting along at a happy pace, admiring the sunshine and the wildlife. Then she turns left and heads directly east for one mile, all the while enjoying the smell of the sweet air and the glorious sights of nature around her. Next, she turns left one more time, exactly , and heads directly north just for one more mile. Surprisingly, after this third one-mile stretch she finds herself back to where she started!

What color was the bear she saw on her walk?

ANSWER TO PUZZLE 2:

I absolutely love this puzzle as it leads to some fabulous thinking about geometry!

I am going to be a bit annoying and suggest you look at the answer I have on my personal website here (https://tinyurl.com/issue24puzzle). But this is the sixth lesson I have in a series of lessons on that site! So, please consider going back to lesson one in that series and see all I have to say about angles and triangles in geometry.