

Cal Poly Department of Mathematics

Puzzle of the Week

Oct 31 - Nov 9, 2016

Here is a Halloween themed puzzle of the week:

Police have been investigating the grizzly death of Dwight, and they have found he might have been devoured by a zombie. There are three suspects, and they each make two statements:

Amy: I am not a zombie! Also, I did not kill Dwight.

Bart: I am a zombie! But I did not kill Dwight.

Carrie: I am not a zombie! But a zombie did kill Dwight.

Upon further investigation the police have found that of the six statements above, only two are true. They have also found that only one of the three suspects is not a zombie.

Who killed Dwight? And is he or she a zombie?

Solutions should be submitted to Morgan Sherman:

Dept. of Mathematics, Cal Poly

Email: sherman1 -AT- calpoly.edu

Office: bldg 25 room 329

before the due date above. Those with correct and complete solutions will have their names listed on the puzzle's web site (see below) as well as in the next email announcement. Anybody associated to Cal Poly is welcome to make a submission.

<http://www.calpoly.edu/~sherman1/puzzleoftheweek>

Solution: Amy, who is a zombie, killed Dwight.

To see this begin by observing that at least one of the second statements made by Amy and Bart must be true. There are two cases: either both are true, or exactly one is true. Tackle each case and its ensuing subcases to arrive at the solution above.