

ZMATH 2015f.00860

Muldoon Brown, Tricia; Kahn, Eric B.

Exploring discrete mathematics with American football.

PRIMUS, Probl. Resour. Issues Math. Undergrad. Stud. 25, No. 5, 421-438 (2015).

Summary: This paper presents an extended project that offers, through American football, an application of concepts from enumerative combinatorics and an introduction to proofs course. The questions in this paper and subsequent details concerning equivalence relations and counting techniques can be used to reinforce these new topics to students in such a transition-to-proofs-type course or to offer an application of known theoretical mathematics to students with more advanced understanding in the major.

Classification: K25 N75 M95

Keywords: abstract algebra; discrete mathematics; enumerative combinatorics; football

doi:10.1080/10511970.2015.1025162