

# Problem 7: Football Players

USMA D/Math Problem of the Week

**Submission Deadline: 30 October, 2008 at 1600**

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**Circle one:**                      cadet                      faculty                      other

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**Problem Statement:**

Twenty-three people of positive integral weights decide to play football. They select one person as referee and then split up into two 11-person teams of equal total weights. It turns out that no matter who the referee this can always be done. Prove that all 23 people have equal weights.