

(February 9, 2011)

Modular forms and number theory exercises 12

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[mfms 12.1] Show that the space of homogeneous degree d harmonic polynomials on \mathbb{R}^3 invariant under rotations of the y, z -plane is *one-dimensional*.

[mfms 12.2]* A Liouville-type theorem: Show that a harmonic function f on \mathbb{R}^n bounded by some power of *radius* is a (harmonic) *polynomial*.