

MATHEMATICS ENRICHMENT CLUB.

Problem Sheet 7, June 17, Brazil 2014 <sup>1</sup>

1. Let  $x = \sqrt[3]{10} + \sqrt[3]{6}$ . Show that  $x^3 - 3x\sqrt[3]{60} = 16$  and deduce (without a calculator) that  $x < 4$ .

2.

