

MATHEMATICS ENRICHMENT CLUB.<sup>1</sup>  
Solution Sheet 1, April 30, 2012

## Answers

1. Easy
2. 1=4 and 1=64 full.
3. 4.
4. easy
- 5.iii)  $n = p^4q^2$ ,  $p; q$  distinct primes will do.
- 6.
- 7.
8. 39,690km, which is less than 2% different from the actual circumference of the earth.

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<sup>1</sup>Some of the problems here come from T. Gagen, Uni. of Syd. and from E. Szekeres, Macquarie Uni.

## Senior Questions.

1.