# Problems with Schoolbook RSA II

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2WF80: Introduction to Cryptology

Given two ciphertexts  $c_1$ ,  $c_2$  encrypted to (n, 3).

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Note that 
$$c_2 = (am_1 + b)^3 = a^3m_1^3 + 3a^2m_1^2b + 3am_1b^2 + b^3$$
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Thus A/B = m. (Note: all computations are done modulo n).

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Easier with more messages (see exercise 6 on sheet 5).