

**Answer on Question #54960, Physics / Astronomy | Astrophysics**

The ratio of recorded energy in the experiment to that from 1  $\psi$  is 200:1. Using equation:

$$m_1 - m_2 = -2.5 \log \left( \frac{B_1}{B_2} \right)$$

Hence:

$$m_{200} - 21 = -2.5 \log \left( \frac{200}{1} \right)$$

$$m_{200} = 21 - 5.25 = 15.25$$

**Answer:  $m_{200} = 15.25$**

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