B2 Lastly, refering back to (1),

$$\left(\begin{array}{c}\text{Number of}\\ \text{good subsets}\end{array}\right) = 2 \times \left(\begin{array}{l}\text{No. of subsets of}\\ \{1,2,3,\ldots,2011\}\\ \text{whose sum of its elements}\\ \text{is divisible by 3}\end{array}\right)$$

$$= 2 \times A_0$$

$$= 2 \times \left[\frac{2^{2011} + 2^{670}}{3}\right] \quad \text{(using 13)}$$

$$= \frac{2^{2012} + 2^{671}}{3}$$

$$= \frac{2^{671}\left(2^{1341} + 1\right)}{3}$$

So Answer: $\left(\frac{2^{2012} + 2^{671}}{3}\right)$ or $\left(\frac{2^{671}\left(2^{1341} + 1\right)}{3}\right)$