Differences 1 Exercise

(1/1 point)

Suppose that you want to partition the following set of numbers so as to minimize the difference of the sum of the two parts $\{1, 2, 4, 8, 16, 32\}$. What is the difference of the best partition?

- 0
- 1 ✔
- 2
- 3
- Larger than 3

EXPLANATION

Solution

The correct answer is: 1

$\{1, 2, 4, 8, 16\}, \{32\}$ results in a difference of 1.

Remark: Interestingly, $\sum_{i=1}^{n-1} 2^i = 2^n - 1$*. One could realize that* $2^5 = 32$*, and the property would hold for* $n = 5$*, resulting in a difference of 1.*

You have used 1 of 1 submissions