# Sequences and Series

## Question

*Which of the following is the greatest sum?*

a

$$\sum_{n=1}^{5} 2n - 10$$

b

$$\sum_{n=1}^{5} 2^{n-10}$$

c

$$\sum_{n=1}^{5} \left(\frac{1}{2}\right)^{n-10}$$

d

$$\sum_{n=1}^{5} 2^{n} - 10$$

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Answer: (c) Students are to recognize that choice (a) will generate negative numbers, (b) will generate fractions, (c) and (d) will generate positive values, but (c) has the larger powers of 2.