2014 **8** Which expression is a term of the geometric series $3x - 6x^2 + 12x^3 - \ldots$? **1**

(A) $3072x^{10}$ (B) $-3072x^{10}$ (C) $3072x^{11}$ (D) $-3072x^{11}$

C

Geometric series, where $a = 3x$, $r = -2x$:

Consider $n = 11$:

$$T_n = ar^{n-1}$$

$$T_{11} = 3x \times (-2x)^{10}$$

$$= 3x \times 1024x^{10}$$

$$= 3072x^{11}$$

State Mean: **0.62**

* These solutions have been provided by *projectmaths* and are not supplied or endorsed by BOSTES.