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- 2014 5** Which group of three numbers could be the roots of the polynomial equation **1**  
 $x^3 + ax^2 - 41x + 42 = 0$ ?  
(A) 2, 3, 7                      (B) 1, -6, 7                      (C) -1, -2, 21                      (D) -1, -3, -14

**B**

Product of roots = -42, so must be either (B) and (D).

Sum of roots in pairs = -41

Consider (B):  $(1)(-6) + (1)(7) + (-6)(7) = -41$ , then the roots could be 1, -6, 7.

State Mean:  
**0.68**

\* These solutions have been provided by [projectmaths](#) and are not supplied or endorsed by BOSTES.