

***“What did the vampire doctor say to his patient?”***

Solve each equation To figure out the joke, place the letter of each problem above the answer on the line(s) below.

**N.  $\log_3(2x - 1) = 3$**

**O.  $\log_7(3x - 11) = \log_7(x - 3)$**

**H.  $\log_6 x + \log_6 3 = 2$**

**S.  $\log_2(x - 3)^3 = 6$**

**F.  $4\log_8 x = 2\log_8 9$**

**I.  $\log x + \log(x + 2) = \log 3$**

**A.  $2\log_2(x + 6) - \log_2 16 = 2$**

**C.  $\log_4(x^2 - 4) - \log_4(x + 2) = 2$**

**T.  $\log_2(5x + 7) - \log_2 x = 2$**

**P.  $\log(x + 5) - \log(x - 1) = \log(x + 2) - \log(x - 3)$**

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**7      no  
solution      4      13      no  
solution      12      2      no  
solution      18      4      3      3      1      14**