**PROOF OF CONCEPT:**

**CALCULATION:**

Amount of Straw taken initially = 1.00gm
i)      Amount of straw remained after decomposition in 20ml Control = 0.835 gm
ii)     Amount of straw that remained after decomposition in 20ml bacterial solution= 0.727 gm
Lignin weight from culture-treated straw:
i)      Lignin from 0.835 gm of without bacterial culture (20 ml Control) treated straw = 0.6974 gm
ii)     Lignin from 0.727 gm of bacterial culture (20 ml Control) treated straw = 0.488 gm
Per Unit obtained lignin:
i)      For 20 ml control culture;
        0.835 gm of straw gives   = 0.6974 gm of lignin
        1.00gm of straw will give = 0.6974/0.835= **0.8352 gm of lignin**
ii)     For 20 ml bacterial culture (without antibiotic);
        0.727 gm of remaining straw gives = 0.488 gm of lignin
        1.00gm of straw will give = 0. 488/ 0.727= **0. 67125 gm of lignin**

Hence, the lignin in bacterial culture treated straw is lesser in quantity signifying the progression of
        reaction towards vanillin production