This project is about multiplying in other bases.

(a) Find the multiplication table for multiplication in base three.

(b) Find the multiplication table for multiplication in base six.

(c) Find the multiplication table for multiplication in base nine.

(d) Convert $(3821)_{10}$ to base

    (i) three

    (ii) six

    (iii) nine

(e) Convert $(821)_{10}$ to base

    (i) three

    (ii) six

    (iii) nine

(f) Multiply the two numbers used above in each base, working entirely in that base (so do not multiply in base ten and then convert to base three, six, or nine). Show the long multiplication.

    (i) base three

    (ii) base six

    (iii) base nine