Double and Half Method:

A. The double and half method is used to make two numbers easier to multiply. The idea is you can double one number and half the other before multiplying.

    Ex [1] 35 x 24 =_____.

        a) 35 x 2 = 70.

        b) 24 ÷ 2 = 12.

        c) 70 x 12 = 840.

        d) The answer is 840.

    Ex [2] 57 x 22 =_____.

        a) 57 x 2 = 114.

        b) 22 ÷ 2 = 11.

        c) 114 x 11 = 1254. See *Multiplying by 11*.

        d) The answer is 1254.

B. This method can also be adapted to multiplying and dividing the numbers by an integer other than 2.

    Ex [1] $6\,^1/_4$ x 96 =_____.

        a) In this example you can multiply and divide by 4.

        b) $6\,^1/_4$ x 4 = 25.

        c) 96 ÷ 4 = 24.

        d) 25 x 24 = 600. See *Multiplying by 25*.

        e) The answer is 600.

    Ex [2] 66 x 21 =_____.

        a) In this example you can multiply and divide by 6.

        b) 66 ÷ 6 = 11.

        c) 21 x 6 = 126.

        d) 126 x 11 = 1386. See *Multiplying by 11*.

        e) The answer is 1386.