Adding a geometric sequence:

A. There are many ways of adding a geometric sequence:

    1. If you can not see all the digits then:

[(first number) + (last number)] x number of terms
2

*Note: This way works for any sequence. If you like you can use this method for

    step 2 and step 3.

        Ex [1] $4 + 8 + 12 + ... + 48 = $_____.

          a) Notice the number of terms is 12.

          b) $^{(4 + 48) \text{ x } 12} / _2 = 52 \text{ x } 6 = 312$.

          c) The answer is 312.

        Ex [2] $7 + 13 + 19 + ... + 47 = $_____.

          a) Notice the number of terms is 11. (*All you have to do is

            subtract 3 and divide by 4.)

          b) $^{(47 + 7) \text{ x } 11} / _2 = {}^{54 \text{ x } 11}/_2 = 27 \text{ x } 11 = 297$. See *Multiplying by 11*.

          c) The answer is 297.

    2. If you can see all the digits and there is an odd number then:

Multiply the middle digit by the number of terms

        Ex [3] $15 + 25 + 35 + 45 + 55 = $_____.

          a) The middle digit is 35 and there are 5 numbers.

          b) 35 x 5 is 175.

          c) The answer is 175.

        Ex [4] $7 + 9 + 11 + 13 + 15 + 17 + 19 = $_____.

          a) The middle digit is 13 and there are 7 numbers.

          b) 13 x 7 = 91.

          c) The answer is 91.

    3. If you can see all the digits and there is an even number then:

Add the middle 2 digits and multiply by half the number of terms

Ex [5] 6 + 12 + 18 + 24 + 30 + 36 =_____.

    a) Since there are 6 terms, half of 6 is 3.   This is the number we will multiply by.

    b) (18 + 24) x 3 = 42 x 3 = 126.

    c) The answer is 126.

Ex [6] 9 + 12 + 15 + 18 + 21 + 24 =_____.

    a) Since there are 6 terms, half of 6 is 3.   This is the number we will multiply by.

    b) (18 + 15) x 3 = 33 x 3 = 99.

    c) The answer is 99.