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class code 6039

11.2 Due Friday 11pm

$$\sum_{n=11}^{30} n = \frac{20}{2}(11+30)$$

How many #'s are there from $n=11$ to $n=30$

$$\downarrow$$
$$(30-11)+1$$

$$11+12+13+14+15+16+17+18+$$

$$19+20+21+22+23+24+25+26+27+28+29+30$$

$$S = \frac{n}{2}(a_1 + a_n)$$

Find the sum of the first 50 terms

54) $-6, -2, 2, 6, \dots$

56) $4.2, 3.7, 3.2, 2.7, \dots$

Find the sum of the series given in sigma notation

$$S_n = \frac{n}{2}(a_1 + a_n)$$

↑
of terms
First Term
Last Term

$$62. \sum_{n=1}^{100} (2n) = \frac{100}{2}(2 + 200) = 10100$$

$$a_n = 2n$$

$$2 + 4 + 6 + \dots + 200$$

n=1 n=2 n=3 n=100

$$66. \sum_{n=51}^{100} n - \sum_{n=1}^{50} n = 2500$$

$$\sum_{n=51}^{100} n = \frac{50}{2}(51 + 100)$$

$$a_n = n$$

$$\sum_{n=1}^{50} n = \frac{50}{2}(1 + 50)$$

$$\sum_{n=1}^{10} 2n = 2 + 4 + 6 + 8 + 10 + 12 + 14 + 16 + 18 + 20$$

$$\# \text{ of terms: } (10 - 5) + 1$$

$$\sum_{n=5}^{10} (2n) = 10 + 12 + 14 + 16 + 18 + 20$$

$n=10$