Algebra II

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2)	$a_n = 40 - 10n$	18)	13
4)	$a_n = 5n - 11$	20)	5.7
6)	$a_n = 22 - 9n$	22)	$\sqrt{2}$
8)	243	24)	25, 35 22.5, 30, 37.5 21, 27, 33, 39
10)	53	26)	$\frac{20}{3}, \frac{40}{3}$ 5, 10, 15 4, 8, 12, 16
12)	-9973	28)	54
14)	6.5	30)	64
16)	-36	32)	24

18) $a_{10} = 41$ $a_{15} = 61$ $\boxed{a_3 = 13}$

-9 From each

$a_1 = 41$ $a_6 = 61$ a_{-6}

$\frac{20}{5}$ $d = 4$

$a_n = a_1 + (n-1)d$

$a_n = 41 + (n-1)4$

$a_{-6} = 41 + (-6-1)4 = 13$

3 - 9

30) 50 500

56 497 ← 56 is the first number divisible by 7 and 497 is the last one.

a_1 a_n

$a_n = a_1 + d(n-1)$

$497 = 56 + 7(n-1)$

Finish solving for *n*.

32) $d=-3$

$40, 37, 34, \ldots, -29$ (a_n)

$a_n = a_1 + (n-1)d$

$a_n = 40 + (n-1)(-3)$

$-29 = 40 - 3n + 3$

$-29 = 43 - 3n$

$\frac{-72}{-3} = \frac{-3n}{-3}$

$24 = n$