

$t_1 = 40$ $t_4 = 9$ $\Rightarrow d = \frac{t_4 - t_1}{4 - 1} = \frac{9 - 40}{3} \Rightarrow d = -10$ $\Rightarrow t_n = 40 + (n-1)(-10)$ $\Rightarrow t_n = 50 - 10n$ $\Rightarrow 50 - 10n = 10$ $\Rightarrow 10n = 40$ $\Rightarrow n = 4$ $t_{40} = 10$	$t_n = 50 - 10n$ $10 \leq 50 - 10n \leq 99$ $10 \leq 50 - 10n$ $-40 \leq -10n$ $4 \leq n$ $50 - 10n \leq 99$ $-49 \leq -10n$ $4.9 \geq n$ $n \leq 4$ $n = 4$
$a_n + d + a_{n+1} + d + a_{n+2} + d = -5n + 12$ $\Rightarrow 3a_n + 3d = -5n + 12$ $\Rightarrow a_n + d = \frac{-5n + 12}{3}$ $d = -2$ $a_1 = 6$ $a_n = a_1 + (n-1)d$ $a_n = 6 + (n-1)(-2)$ $a_n = 8 - 2n$ $a_1 = 6$ $a_{17} = 8 - 2(17) = -26$ $a_1 + a_{17} = 6 + (-26) = -20$	$t_1 - t_4 = t_{17} - t_1 = 3d$ $\Rightarrow t_{17} - t_1 = 3d$ $\Rightarrow t_{17} = t_1 + 3d$ $\Rightarrow t_{17} = 40 + 3(-10) = 10$ $t_{17} = 10$
$t_{17} - t_{10} = 7d$ $\Rightarrow 10 - 40 = 7d$ $\Rightarrow -30 = 7d$ $\Rightarrow d = -\frac{30}{7}$ $t_{17} + t_{10} = 50$ $\Rightarrow t_{17} + 40 = 50$ $\Rightarrow t_{17} = 10$ $t_{17} = 10$	$t_{17} = 10$

