

HW 10

2) all primes ≤ 140

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
~~32~~ 33 34 35 36 37 38 39 40 41 42 43 44 45 46
47 48 49 50 51 52 53 54 55 56 57 58 59 60 61
62 63 64 65 66 67 68 69 70 71 72 73 74 75 76
77 78 79 80 81 82 83 84 85 86 87 88 89 90 91
92 93 94 95 96 97 98 99 100 101 102 103 104 105 106
107 108 109 110 111 112 113 114 115 116 117 118 119 120 121
122 123 124 125 126 127 128 129 130 131 132 133 134 135 136
137 138 139 140

3) 3003

$$\begin{aligned}L(3003) &= [3, 1], \quad L(3003/3) = [3, 1] \quad L(1001) \\L(1001) &= [7, 1], \quad L(1001/7) = [7, 1] \quad L(143) \\L(143) &= [11, 1], \quad L(143/11) = [11, 1] \quad L(13) \\L(13) &= [13, 1], \quad L(13/13) = 1\end{aligned}$$

$$[3, 2], [7, 1], [11, 1], [13, 1]$$

4) we can say roughly 8×10^{42}