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Digits in Units and Tens Places of 3-PrimeFactors Numbers till 1 Trillion

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Abstract

Keywords:

Prime number; k-PrimeFactors number; 3-PrimeFactors number; Digits in units and tens places.

Positive integers which have precisely 3 prime divisors are called as '3-PrimeFactors numbers'. As they inherit unidentified distribution pattern from primes from which they are built, their study from all perspectives, like primes, becomes necessary. Using decimal number system, occurrence analysis of all digit combinations in units and tens places of 3-PrimeFactors numbers is presented here. The range chosen covers all numbers havingupto as many as 12 significant decimal digits.

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1. Introduction

Addition, subtraction and multiplication are the operation which when done with integers, yield again integers. Of these, addition and multiplication exhibit this property with positive integers also. The fourth arithmetic operation, which doesn't show this property with integers, is division. Division of integers need not always give integers. So we are interested in cases when it actually does. What is talked about is divisibility. Positive integers which are primitive in divisibility don't have any non-trivial divisors and are well-known as prime numbers [1]. This is a class of numbers having innocent looking definition but forming most mysterious structure due to hitherto unknown precise properties. Not only they or their types are special, but many other classes of numbers that are based on them become equally so; like the newly defined next one.

Definition (k-PrimeFactors Number) [6]: For any integer $k \ge 0$, a positive integer having k number of prime divisors, not be necessarily distinct, is called as k-PrimeFactors number.

0-PrimeFactors number is unique and it is unity (1). It enjoys many exclusive properties, like being multiplicative identity, being self reciprocal, own factorial, own square, own cube, having unique positive divisor as self and many more so.

1-PrimeFactor numbers are primes themselves, and as mentioned above, are studied in two primaryways: exclusively in specific large ranges [3] or asymptotically in arbitrary ranges. Their types are no exception for first [4] as well as second approach of study.

2-PrimeFactors numbers have been recently considered for their minimum [6] and maximum densities [7], minimum [8] and maximum spacings [9] between their successive members, digits in their units [10] place and units & tens places [11].

Similar analysis of 3-PrimeFactors numbers done till now has thrown light ontheir minimum [12] and maximum densities [13], minimum [14] and maximum spacings [15] between their successive members as well as digits in their units [16] place.

The approach in getting results about previous two types of numbers was based on first generating usual primes by using efficient algorithms [2] on modern electronic computers running Java programming language [5].

2. Digits in Units and Tens Places of 3-PrimeFactors Numbers

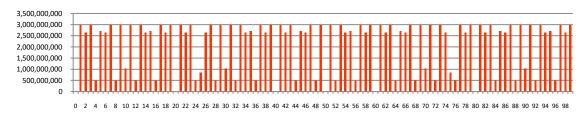
With due respect to decimal number system with base 10 in use almost everywhere, in this work we have exhaustively determined and analyseddigits in units and tens places of 3-primefactors numbers till 1 trillion.

Digit in Units	Number of 3-PrimeFactors	Digit in Units	Number of 3-PrimeFactors
& Tens Places	Numbers < 10 ¹²	& Tens Places	Numbers < 10 ¹²
00	0	10	1,029,517,130
01	2,979,277,532	11	2,979,220,747
02	2,636,978,935	12	496,002,799
03	2,979,257,921	13	2,979,265,188
04	496,006,640	14	2,636,992,085
05	2,694,369,122	15	2,694,351,460
06	2,636,988,732	16	496,004,725
07	2,979,256,767	17	2,979,233,988
08	496,006,148	18	2,636,986,216
09	2,979,251,044	19	2,979,344,677
20	1	30	1,029,509,448
21	2,979,269,874	31	2,979,245,251
22	2,636,991,893	32	496,012,087
23	2,979,285,991	33	2,979,257,037
24	496,002,832	34	2,636,985,706
25	855,972,440	35	2,694,356,492
26	2,636,999,010	36	496,007,407
27	2,979,279,986	37	2,979,261,670
28	496,004,412	38	2,636,978,877
29	2,979,251,241	39	2,979,254,721
40	0	50	1
41	2,979,247,090	51	2,979,285,045
42	2,636,999,481	52	496,000,355
43	2,979,271,742	53	2,979,234,797
44	496,001,886	54	2,636,965,210
45	2,694,362,312	55	2,694,355,069
46	2,636,973,256	56	496,005,188
47	2,979,268,772	57	2,979,218,076
48	496,005,686	58	2,636,992,557
49	2,979,241,332	59	2,979,270,725
60	0	70	1,029,518,337
61	2,979,238,768	71	2,979,270,931
62	2,637,004,656	72	495,998,098
63	2,979,242,871	73	2,979,249,073
64	495,998,951	74	2,636,974,877
65	2,694,351,957	75	855,982,992
66	2,636,967,593	76	496,004,785
67	2,979,268,785	77	2,979,271,043
68	495,997,535	78	2,636,976,708
69	2,979,178,247	79	2,979,228,844

80	0	90	1,029,509,896
81	2,979,206,905	91	2,979,234,449
82	2,636,991,954	92	496,006,703
83	2,979,244,360	93	2,979,266,680
84	496,005,945	94	2,636,995,736
85	2,694,364,378	95	2,694,362,295
86	2,636,975,992	96	495,997,643
87	2,979,273,217	97	2,979,300,256
88	496,009,779	98	2,637,041,411
89	2,979,285,478	99	2,979,247,971

Their graphical comparison follows.

Number of 3-PrimeFactors Numbers less than 1 Trillion with Different Digits in Tens and Units Places



Digit Combinations

3. Range-wise Digits in Units & Tens Places of 3-PrimeFactors Numbers

In the earlier section the values given were for whole range of 1 trillion. Here, instead for more details, the same values are given in gradually increasing ranges.

Sr.	Danas	Number of 3-	PrimeFactors Num	bers with Followi	ng Digits in Units 8	& Tens Places
No.	Range	00	01	02	03	04
1	<10 ¹	0	0	0	0	0
2	<10 ²	0	0	0	0	0
3	<10 ³	0	1	4	2	2
4	<104	0	17	38	19	18
5	<10 ⁵	0	240	399	247	140
6	<10 ⁶	0	2,689	3,831	2,679	1,083
7	<10 ⁷	0	28,335	35,899	28,434	9,143
8	<10 ⁸	0	293,157	335,739	294,075	78,304
9	<10 ⁹	0	2,985,017	3,143,990	2,986,202	683,786
10	<10 ¹⁰	0	30,013,100	29,538,802	30,010,034	6,071,825
11	<10 ¹¹	0	299,705,140	278,631,343	299,709,710	54,599,594
12	<10 ¹²	0	2,979,277,532	2,636,978,935	2,979,257,921	496,006,640

Sr.	Danas	Number of 3-	PrimeFactors Num	bers with Followi	ith Following Digits in Units & Tens Places		
No.	Range	05	06	07	80	09	
1	<10 ¹	0	0	0	1	0	
2	<10 ²	0	0	0	1	0	
3	<10 ³	4	5	2	3	2	
4	<10 ⁴	45	42	21	19	20	
5	<10 ⁵	412	416	239	142	231	
6	<10 ⁶	3,956	3,823	2,657	1,106	2,673	
7	<10 ⁷	36,943	35,778	28,286	9,177	28,252	
8	<10 ⁸	344,865	335,393	293,978	78,378	293,127	

Sr.	Danas	ng Digits in Units 8	& Tens Places			
No.	Range	05	06	07	08	09
9	<10 ⁹	3,225,275	3,142,120	2,986,417	684,137	2,984,813
10	<10 ¹⁰	30,270,258	29,543,136	30,014,436	6,071,966	30,013,125
11	<10 ¹¹		278,634,770	299,710,850	54,599,424	299,725,113
12	<10 ¹²	2,694,369,122	2,636,988,732	2,979,256,767	496,006,148	2,979,251,044

Sr.	Danas	Number of 3-l	ber of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places					
No.	Range	10	11	12	13	14		
1	<10 ²	0	0	1	0	0		
2	<10 ³	5	1	3	0	2		
3	<104	40	18	18	21	36		
4	<10 ⁵	306	234	130	246	409		
5	<10 ⁶	2,387	2,687	1,096	2,621	3,842		
6	<10 ⁷	19,617	28,435	9,202	28,340	35,950		
7	<10 ⁸	166,104	293,533	78,429	293,982	335,541		
8	<10 ⁹	1,440,298	2,985,357	684,117	2,985,638	3,142,202		
9	<10 ¹⁰	12,711,386	30,013,064	6,072,391	30,013,048	29,539,039		
10	<10 ¹¹	113,761,519	299,708,797	54,598,574	299,714,164	278,622,227		
11	<10 ¹²	1,029,517,130	2,979,220,747	496,002,799	2,979,265,188	2,636,992,085		

Sr.	Number of 3-PrimeFactors Numbers with Following Digits in Units &					& Tens Places
No.	Range	15	16	17	18	19
1	<10 ²	0	0	0	1	0
2	<10 ³	3	4	1	5	0
3	<10 ⁴	40	18	15	38	22
4	<10 ⁵	408	136	238	403	241
5	<10 ⁶	3,889	1,088	2,687	3,844	2,714
6	<10 ⁷	36,798	9,144	28,382	36,011	28,435
7	<10 ⁸	344,437	78,228	293,572	335,928	293,704
8	<10 ⁹	3,224,399	684,132	2,986,880	3,142,906	2,984,113
9	<10 ¹⁰	30,265,960	6,073,001	30,014,499	29,542,065	30,007,825
10	<10 ¹¹	285,075,931	54,598,030	299,694,477	278,623,162	299,711,299
11	<10 ¹²	2,694,351,460	496,004,725	2,979,233,988	2,636,986,216	2,979,344,677

Sr.	Danas	Number of 3-	PrimeFactors Num	rs Numbers with Following Digits in Units & Tens Places				
No.	Range	20	21	22	23	24		
1	<10 ²	1	0	0	0	0		
2	<10 ³	1	0	4	1	3		
3	<10 ⁴	1	22	42	25	20		
4	<10 ⁵	1	246	425	244	139		
5	<10 ⁶	1	2,633	3,854	2,692	1,098		
6	<10 ⁷	1	28,381	35,981	28,371	9,109		
7	<10 ⁸	1	293,726	335,392	293,641	78,235		
8	<10 ⁹	1	2,984,032	3,141,916	2,984,496	683,920		
9	<10 ¹⁰	1	30,004,755	29,544,076	30,016,057	6,072,530		
10	<10 ¹¹	1	299,716,340	278,639,418	299,713,131	54,598,675		
11	<10 ¹²	1	2,979,269,874	2,636,991,893	2,979,285,991	496,002,832		

Sr.	Danas	ng Digits in Units a	& Tens Places			
No.	Range	25	26	27	28	29
1	<10 ²	0	0	1	1	0
2	<10 ³	5	2	3	3	1
3	<10 ⁴	37	42	13	17	20

Sr.	Danas	Number of 3-l	PrimeFactors Num	ng Digits in Units 8	g Digits in Units & Tens Places		
No.	Range	25	26	27	28	29	
4	<10 ⁵	269	405	252	140	243	
5	<10 ⁶	2,085	3,886	2,705	1,107	2,614	
6	<10 ⁷	16,900	35,844	28,469	9,166	28,279	
7	<10 ⁸	141,502	334,948	293,682	78,289	293,569	
8	<10 ⁹	1,216,687	3,142,448	2,985,056	684,091	2,985,466	
9	<10 ¹⁰	10,667,607	29,540,298	30,012,609	6,072,928	30,014,422	
10	<10 ¹¹	94,979,097	278,632,110	299,705,115	54,597,945	299,698,723	
11	<10 ¹²	855,972,440	2,636,999,010	2,979,279,986	496,004,412	2,979,251,241	

Sr.	Danas	Number of 3-l	PrimeFactors Num	bers with Followi	ng Digits in Units &	& Tens Places
No.	Range	30	31	32	33	34
1	<10 ²	1	0	0	0	0
2	<10 ³	7	3	2	2	3
3	<104	42	20	20	18	40
4	<10 ⁵	310	245	140	248	417
5	<10 ⁶	2,402	2,670	1,111	2,692	3,878
6	<10 ⁷	19,665	28,386	9,158	28,281	35,788
7	<10 ⁸	166,230	293,353	78,294	293,875	335,362
8	<10 ⁹	1,440,474	2,985,203	684,066	2,984,204	3,142,949
9	<10 ¹⁰	12,712,499	30,014,591	6,071,678	30,014,728	29,538,893
10	<10 ¹¹	113,765,625	299,720,078	54,599,070	299,718,838	278,634,822
11	<10 ¹²	1,029,509,448	2,979,245,251	496,012,087	2,979,257,037	2,636,985,706

Sr.	Danas	Number of 3-	PrimeFactors Num	nbers with Following Digits in Units & Tens Places				
No.	Range	<i>35</i>	36	37	38	39		
1	<10 ²	0	0	0	0	0		
2	<10 ³	2	2	1	6	2		
3	<10 ⁴	35	20	20	47	20		
4	<10 ⁵	398	139	248	407	245		
5	<10 ⁶	3,920	1,107	2,710	3,822	2,696		
6	<10 ⁷	36,823	9,145	28,431	35,757	28,534		
7	<10 ⁸	344,547	78,245	293,468	335,778	293,133		
8	<10 ⁹	3,224,127	683,951	2,983,402	3,143,638	2,983,803		
9	<10 ¹⁰	30,266,540	6,071,882	30,012,294	29,542,612	30,016,452		
10	<10 ¹¹	285,066,725	54,600,654	299,721,067	278,633,694	299,707,484		
11	<10 ¹²	2,694,356,492	496,007,407	2,979,261,670	2,636,978,877	2,979,254,721		

Sr.	Danas	Number of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places						
No.	Range	40	41	42	43	44		
1	<10 ²	0	0	1	0	1		
2	<10 ³	0	1	6	1	3		
3	<10 ⁴	0	16	40	23	19		
4	<10 ⁵	0	227	417	239	134		
5	<10 ⁶	0	2,647	3,807	2,666	1,102		
6	<10 ⁷	0	28,444	35,891	28,518	9,158		
7	<10 ⁸	0	293,366	335,557	293,500	78,297		
8	<10 ⁹	0	2,984,511	3,143,676	2,984,133	684,173		
9	<10 ¹⁰	0	30,011,088	29,543,339	30,016,060	6,071,869		
10	<10 ¹¹	0	299,709,648	278,629,054	299,715,997	54,599,873		
11	<10 ¹²	0	2,979,247,090	2,636,999,481	2,979,271,742	496,001,886		

Sr.	Danas	Number of 3-I	PrimeFactors Num	bers with Followi	ng Digits in Units 8	& Tens Places
No.	Range	45	46	47	48	49
1	<10 ²	1	0	0	0	0
2	<10 ³	5	3	3	2	1
3	<104	45	36	23	20	15
4	<10 ⁵	427	402	232	139	229
5	<10 ⁶	3,963	3,870	2,659	1,092	2,658
6	<10 ⁷	36,954	35,890	28,489	9,151	28,417
7	<10 ⁸	344,829	335,711	293,643	78,376	293,857
8	<10 ⁹	3,226,240	3,142,259	2,984,197	683,798	2,983,802
9	<10 ¹⁰	30,266,847	29,540,268	30,020,501	6,072,543	30,011,626
10	<10 ¹¹	285,078,692	278,622,118	299,727,187	54,600,232	299,703,401
11	<10 ¹²	2,694,362,312	2,636,973,256	2,979,268,772	496,005,686	2,979,241,332

Sr.	Danas	Number of 3-	PrimeFactors Num	bers with Followi	ng Digits in Units 8	& Tens Places
No.	Range	50	51	52	53	54
1	<10 ²	1	0	1	0	0
2	<10 ³	1	1	3	1	5
3	<10 ⁴	1	25	19	20	47
4	<10 ⁵	1	250	135	233	406
5	<10 ⁶	1	2,647	1,096	2,699	3,776
6	<10 ⁷	1	28,360	9,157	28,470	35,821
7	<10 ⁸	1	293,496	78,282	293,741	335,262
8	<10 ⁹	1	2,984,194	684,072	2,984,757	3,142,919
9	<10 ¹⁰	1	30,012,768	6,072,952	30,013,376	29,543,227
10	<10 ¹¹	1	299,726,685	54,601,634	299,704,480	278,629,425
11	<10 ¹²	1	2,979,285,045	496,000,355	2,979,234,797	2,636,965,210

Sr.	Danas	Number of 3-	PrimeFactors Num	bers with Followi	ng Digits in Units a	& Tens Places
No.	Range	55	56	<i>57</i>	58	59
1	<10 ²	0	0	0	0	0
2	<10 ³	3	3	3	2	1
3	<10 ⁴	41	18	22	42	20
4	<10 ⁵	419	140	232	413	244
5	<10 ⁶	3,943	1,110	2,649	3,882	2,678
6	<10 ⁷	36,889	9,167	28,395	35,927	28,299
7	<10 ⁸	344,460	78,360	293,722	335,570	293,741
8	<10 ⁹	3,224,156	683,632	2,984,900	3,143,305	2,985,358
9	<10 ¹⁰	30,265,273	6,071,725	30,012,991	29,541,593	30,012,667
10	<10 ¹¹	285,067,855	54,600,491	299,723,888	278,636,125	299,716,786
11	<10 ¹²	2,694,355,069	496,005,188	2,979,218,076	2,636,992,557	2,979,270,725

Sr.	Range	Number of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places						
No.	Kullye	60	61	62	63	64		
1	<10 ²	0	0	0	1	0		
2	<10 ³	0	3	2	4	3		
3	<10 ⁴	0	18	43	16	15		
4	<10 ⁵	0	230	412	236	138		
5	<10 ⁶	0	2,669	3,846	2,705	1,097		
6	<10 ⁷	0	28,361	35,964	28,375	9,164		
7	<10 ⁸	0	293,543	335,262	294,202	78,318		
8	<10 ⁹	0	2,985,859	3,142,592	2,985,533	683,766		
9	<10 ¹⁰	0	30,013,173	29,539,772	30,016,963	6,071,966		
10	<10 ¹¹	0	299,710,957	278,631,964	299,706,326	54,596,962		

Sr.	Danas	Number of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places					
No.	Range	60	61	62	63	64	
11	<10 ¹²	0	2,979,238,768	2,637,004,656	2,979,242,871	495,998,951	

Sr.	Danas	Number of 3-	PrimeFactors Num	bers with Followi	ng Digits in Units &	& Tens Places
No.	Range	65	66	<i>67</i>	68	69
1	<10 ²	0	1	0	1	0
2	<10 ³	3	3	1	3	2
3	<10 ⁴	39	36	22	18	20
4	<10 ⁵	412	394	237	136	229
5	<10 ⁶	3,919	3,793	2,627	1,102	2,648
6	<10 ⁷	36,855	35,935	28,532	9,155	28,560
7	<10 ⁸	344,465	335,631	293,944	78,408	293,704
8	<10 ⁹	3,224,647	3,143,246	2,984,678	684,215	2,983,806
9	<10 ¹⁰	30,266,983	29,539,849	30,014,444	6,072,128	30,010,161
10	<10 ¹¹	285,067,237	278,629,545	299,719,667	54,598,568	299,709,784
11	<10 ¹²	2,694,351,957	2,636,967,593	2,979,268,785	495,997,535	2,979,178,247

Sr.	Danas	Number of 3-	PrimeFactors Num	bers with Followi	ng Digits in Units &	& Tens Places
No.	Range	70	71	72	73	74
1	<10 ²	1	0	0	0	0
2	<10 ³	6	1	2	2	5
3	<10 ⁴	46	19	17	22	44
4	<10 ⁵	308	242	141	225	391
5	<10 ⁶	2,411	2,728	1,108	2,662	3,811
6	<10 ⁷	19,621	28,380	9,161	28,463	35,813
7	<10 ⁸	166,211	293,790	78,298	293,115	335,546
8	<10 ⁹	1,440,495	2,984,416	683,625	2,986,184	3,142,985
9	<10 ¹⁰	12,712,314	30,014,889	6,071,760	30,017,483	29,542,055
10	<10 ¹¹	113,764,039	299,710,908	54,599,362	299,709,136	278,634,153
11	<10 ¹²	1,029,518,337	2,979,270,931	495,998,098	2,979,249,073	2,636,974,877

Sr.	Danas	Number of 3-	PrimeFactors Num	bers with Followi	ng Digits in Units 8	& Tens Places
No.	Range	<i>75</i>	<i>76</i>	<i>77</i>	<i>78</i>	<i>79</i>
1	<10 ²	1	1	0	1	0
2	<10 ³	6	1	2	4	1
3	<10 ⁴	40	15	22	42	21
4	<10 ⁵	280	139	221	391	238
5	<10 ⁶	2,117	1,106	2,676	3,810	2,631
6	<10 ⁷	16,959	9,172	28,490	36,044	28,415
7	<10 ⁸	141,643	78,233	293,993	335,684	293,741
8	<10 ⁹	1,216,966	683,816	2,984,014	3,143,961	2,985,146
9	<10 ¹⁰	10,668,718	6,072,519	30,012,640	29,542,264	30,016,320
10	<10 ¹¹	94,982,714	54,597,432	299,715,203	278,633,071	299,719,177
11	<10 ¹²	855,982,992	496,004,785	2,979,271,043	2,636,976,708	2,979,228,844

Sr.	Danas	Number of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places						
No.	Range	80	81	82	83	84		
1	<10 ²	0	0	0	0	0		
2	<10 ³	0	1	5	1	1		
3	<10 ⁴	0	23	49	23	17		
4	<10 ⁵	0	233	397	256	138		
5	<10 ⁶	0	2,617	3,826	2,703	1,115		
6	<10 ⁷	0	28,256	35,881	28,412	9,187		

Sr.	Danas	Number of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places						
No.	Range	80	81	82	83	84		
7	<10 ⁸	0	293,861	335,337	293,498	78,175		
8	<10 ⁹	0	2,984,111	3,144,680	2,983,980	683,891		
9	<10 ¹⁰		30,017,106	29,543,547	30,013,680	6,071,432		
10	<10 ¹¹		299,715,517	278,640,230	299,721,210	54,599,539		
11	<10 ¹²	0	2,979,206,905	2,636,991,954	2,979,244,360	496,005,945		

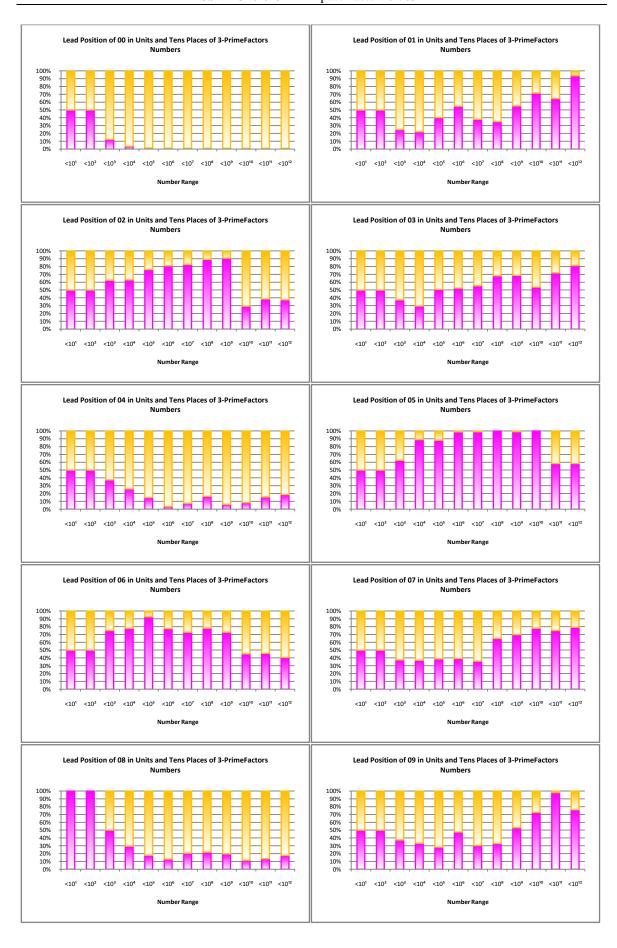
Sr.	Danas	Number of 3-l	PrimeFactors Num	bers with Followi	ng Digits in Units &	& Tens Places
No.	Range	85	86	87	88	89
1	<10 ²	0	0	0	0	0
2	<10 ³	3	4	2	3	0
3	<10 ⁴	46	44	21	21	19
4	<10 ⁵	415	395	250	138	244
5	<10 ⁶	3,919	3,812	2,712	1,111	2,669
6	<10 ⁷	36,825	35,766	28,419	9,133	28,271
7	<10 ⁸	344,554	335,534	293,806	78,183	293,703
8	<10 ⁹	3,224,328	3,143,234	2,985,622	684,156	2,984,528
9	<10 ¹⁰	30,267,170	29,542,982	30,009,895	6,072,315	30,010,581
10	<10 ¹¹	285,071,411	278,632,404	299,718,774	54,600,940	299,712,443
11	<10 ¹²	2,694,364,378	2,636,975,992	2,979,273,217	496,009,779	2,979,285,478

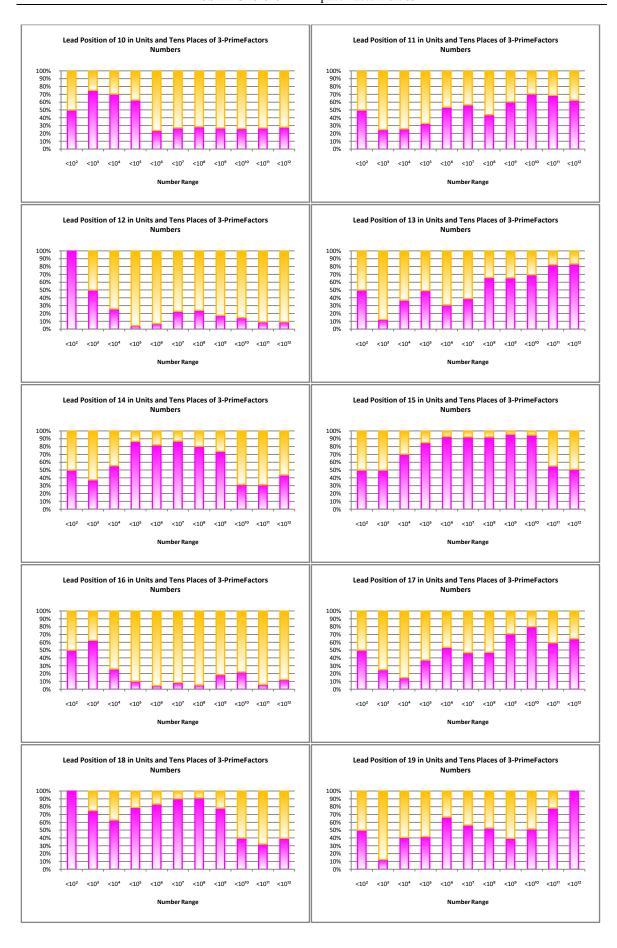
Sr.	Range	Number of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places					
No.		90	91	92	93	94	
1	<10 ²	0	0	1	0	0	
2	<10 ³	5	0	4	0	3	
3	<104	38	17	21	18	37	
4	<10 ⁵	303	234	144	244	393	
5	<10 ⁶	2,390	2,693	1,109	2,695	3,825	
6	<10 ⁷	19,593	28,639	9,134	28,518	35,923	
7	<10 ⁸	166,032	294,225	78,232	293,944	335,626	
8	<10 ⁹	1,440,186	2,984,125	683,993	2,984,142	3,143,371	
9	<10 ¹⁰	12,711,333	30,011,404	6,072,550	30,010,897	29,540,536	
10	<10 ¹¹	113,761,326	299,710,397	54,602,119	299,708,705	278,630,797	
11	<10 ¹²	1,029,509,896	2,979,234,449	496,006,703	2,979,266,680	2,636,995,736	

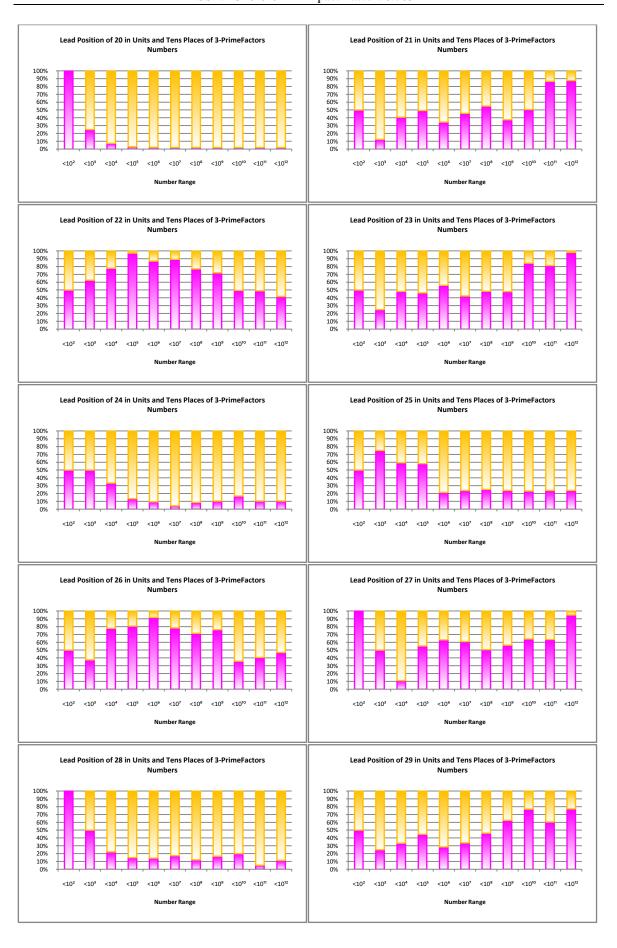
Sr.	Range	Number of 3-PrimeFactors Numbers with Following Digits in Units & Tens Places					
No.		95	96	97	98	99	
1	<10 ²	0	0	0	1	1	
2	<10 ³	3	2	1	3	2	
3	<10 ⁴	41	16	19	46	20	
4	<10 ⁵	412	133	269	428	233	
5	<10 ⁶	3,927	1,099	2,658	3,853	2,674	
6	<10 ⁷	36,840	9,088	28,450	35,842	28,335	
7	<10 ⁸	344,459	78,362	293,446	335,264	293,818	
8	<10 ⁹	3,224,437	683,980	2,983,690	3,142,947	2,985,204	
9	<10 ¹⁰	30,265,723	6,071,410	30,010,953	29,542,585	30,012,370	
10	<10 ¹¹	285,080,609	54,598,286	299,712,152	278,628,883	299,718,278	
11	<10 ¹²	2,694,362,295	495,997,643	2,979,300,256	2,637,041,411	2,979,247,971	

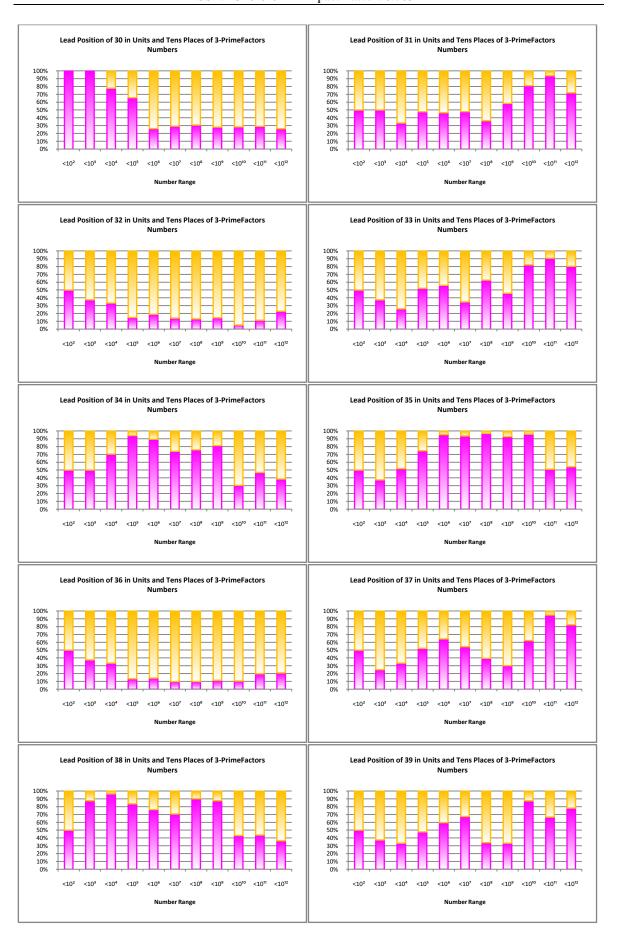
4. Range-wise Lead Positions of Digits in Units & Tens Places of 3-PrimeFactors Numbers

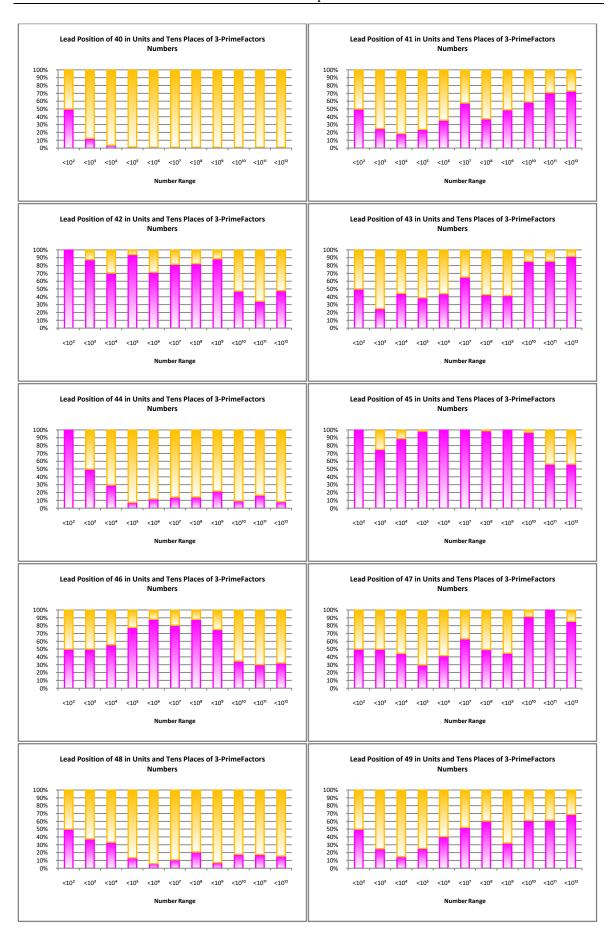
The 1110 values determined rigorously above give therange-wise lead positions in percentages of each combination of digits in units and tens places of 3-PrimeFactors numbers till 1 trillion.

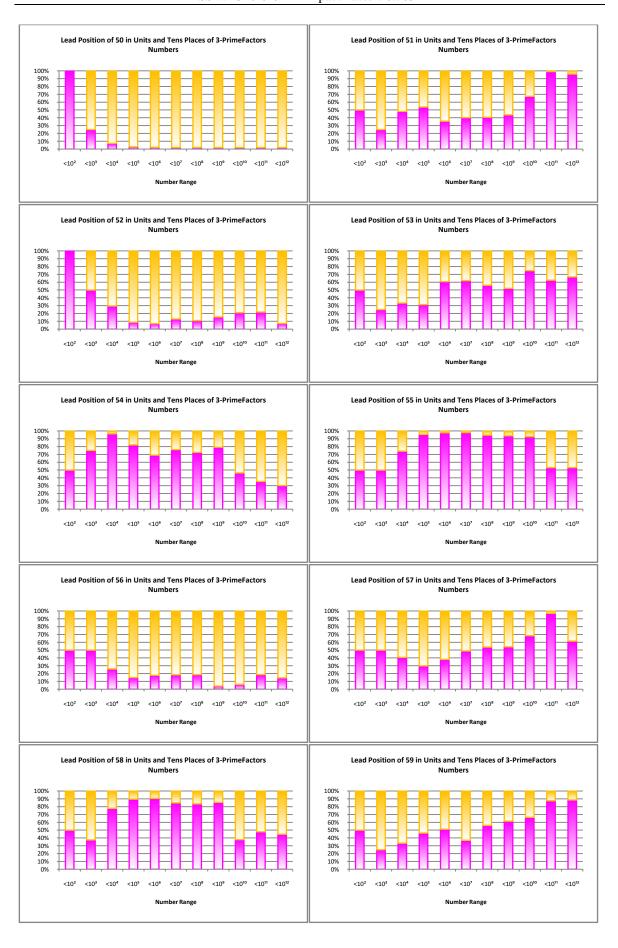


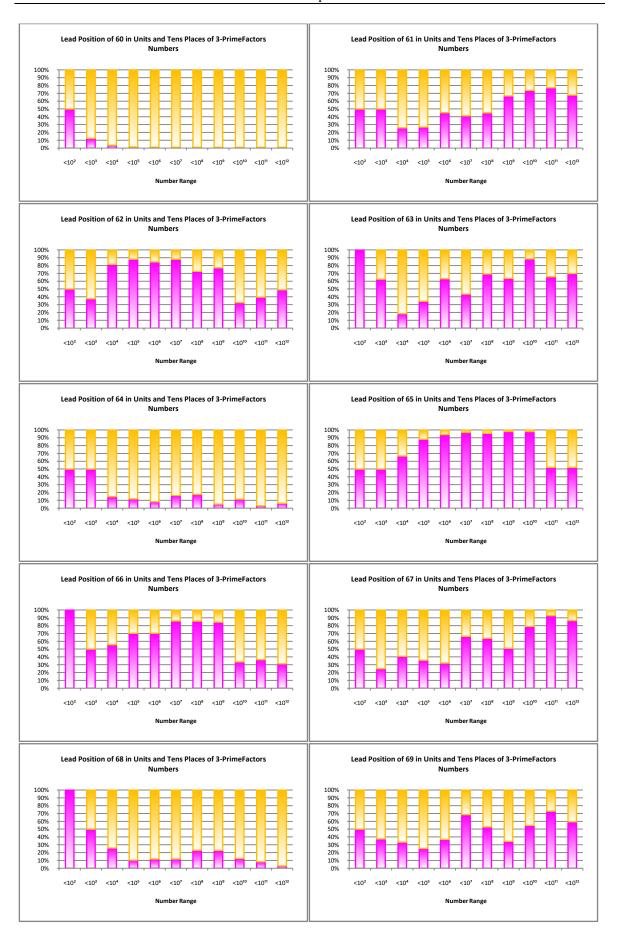


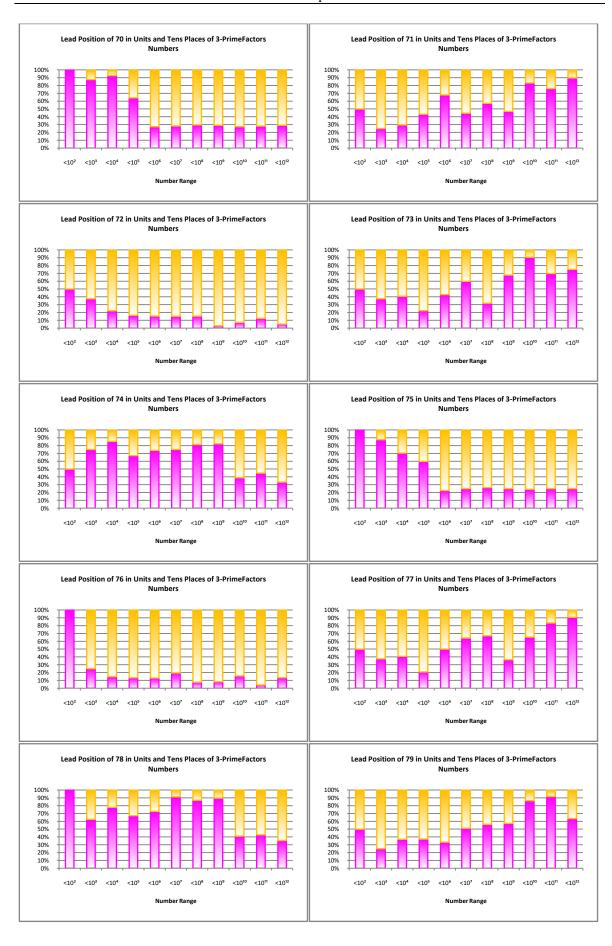


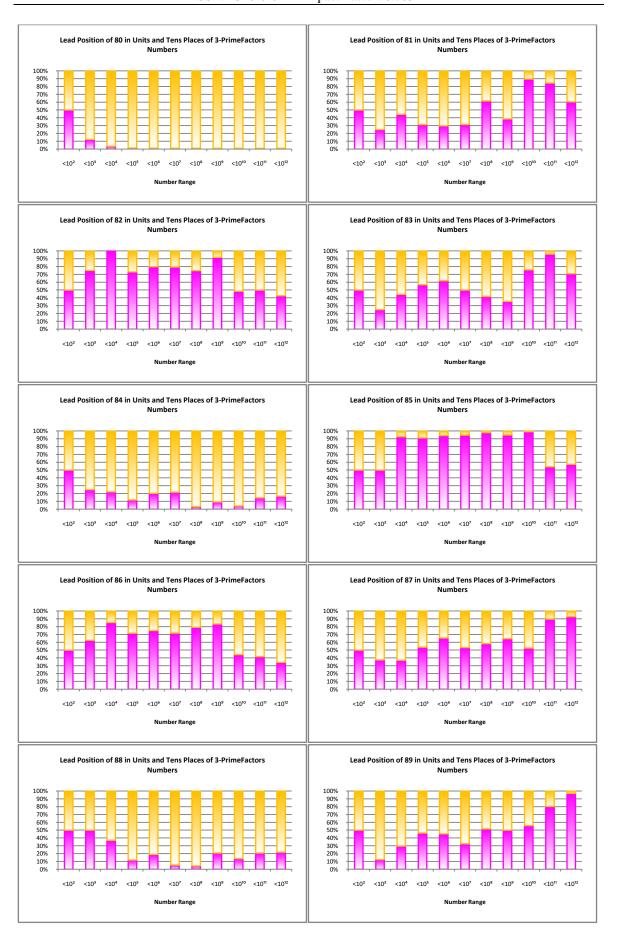


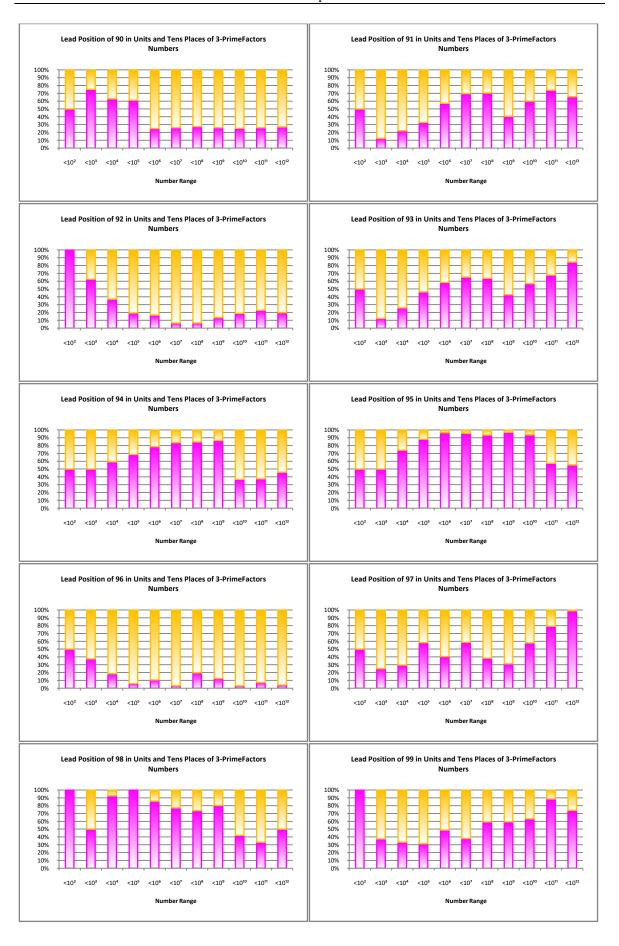












5. Patterns of Digits in Units & Tens Places of 3-PrimeFactors Numbers

All the above values indicate following properties so long as the decimal digits in units and tens places of 3-PrimeFactors numbers are concerned.

The 4 digit combinations 00, 40, 60 and 80 never occur in units and tens places of 3-PrimeFactors numbers.

The digitcombinations 20& 50 occur only once, that too right at these numbers and not later.

The other digit combination which are perfectly divisible by 4 viz., 04, 08, 12, 16, 24, 28, 32, 36, 44, 48, 52, 56, 64, 68, 72, 76, 84, 88, 92 and 96 occur at next higher class about 0.049% of total numbers.

The other 2 digit combinations which are multiples of 25, viz., 25 and 75 stand at next higher level with percentage of around 0.0855, near double of their above value.

The remaining digit combinations of multiples of 10, viz., 10, 30, 70 and 90 are having next higher percentage of occurrence of about 0.10.

All other remaining digit combinations dominate occurrence percentage with values from 0.26 to 0.29.

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