MATH 4175 Project 1
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GCD(512224, 132128) Output:
Enter the first number: 512224
Enter the second number: 132128

u1	v1	u2	v2	u3	v3	q
1	0	0	1	512224	132128	0
0	1	1	-3	132128	115840	3
1	-1	-3	4	115840	16288	1
-1	8	4	-31	16288	1824	7
8	-65	-31	252	1824	1696	8
-65	73	252	-283	1696	128	1
73	-1014	-283	3931	128	32	13
-1014	4129	3931	-16007	32	0	4

gcd(512224, 132128) = 32
x = -1014
y = 3931
verfication: 512224*(-1014) + 132128*(3931) = 32

GCD(5652768, 2671776) Output:
Enter the first number: 5652768
Enter the second number: 2671776

u1	v1	u2	v2	u3	v3	q
1	0	0	1	5652768	2671776	0
0	1	1	-2	2671776	309216	2
1	-8	-2	17	309216	198048	8
-8	9	17	-19	198048	111168	1
9	-17	-19	36	111168	86880	1
-17	26	36	-55	86880	24288	1
26	-95	-55	201	24288	14016	3
-95	121	201	-256	14016	10272	1
121	-216	-256	457	10272	3744	1
-216	553	457	-1170	3744	2784	2
553	-769	-1170	1627	2784	960	1
-769	2091	1627	-4424	960	864	2
2091	-2860	-4424	6051	864	96	1
-2860	27831	6051	-58883	96	0	9

gcd(5652768, 2671776) = 96
x = -2860
y = 6051
verfication: 5652768*(-2860) + 2671776*(6051) = 96

GCD(17601969, 2364768) Output:
Enter the first number: 17601969
Enter the second number: 2364768

u1	v1	u2	v2	u3	v3	q
1	0	0	1	17601969	2364768	0
0	1	1	-7	2364768	1048593	7
1	-2	-7	15	1048593	267582	2
-2	7	15	-52	267582	245847	3
7	-9	-52	67	245847	21735	1
-9	106	67	-789	21735	6762	11
106	-327	-789	2434	6762	1449	3
-327	1414	2434	-10525	1449	966	4
1414	-1741	-10525	12959	966	483	1
-1741	4896	12959	-36443	483	0	2

gcd(17601969, 2364768) = 483
x = -1741
y = 12959
verfication: 17601969*(-1741) + 2364768*(12959) = 483