M	Type	Xp=(p-1)/2	Xm=(M-1)/(2p)
2^2-1		0 = {}	{}
2^3-1	4k+3	1 = {}	{}
2^5-1	4k+1	2 = {2}	{3}
2^7-1	4k+3	3 = {3}	{3^2}
2^{11}-1	4k+3	5 = {5}	{3*31}
2^{13}-1	4k+1	6 = {2*3}	{3^2*5*7}
2^{17}-1	4k+1	8 = {2^3}	{3*5*257}
2^{19}-1	4k+3	9 = {3^2}	{3^3*7*73}
2^{23}-1	4k+3	11 = {11}	{3*89*683}
2^{29}-1	4k+1	14 = {2*7}	{3*5*43*113*127}
2^{31}-1	4k+3	15 = {3*5}	{3^2*7*11*151*331}
2^{37}-1	4k+1	18 = {2*3^2}	{3^3*5*7*13*19*73*109}
2^{41}-1	4k+1	20 = {2^2*5}	{3*5^2*11*17*31*61681}
2^{43}-1	4k+3	21 = {3*7}	{3^2*7^2*127*337*5419}
2^{47}-1	4k+3	23 = {23}	{3*178481*2796203}
2^{53}-1	4k+1	26 = {2*13}	{3*5*157*1613*2731*8191}
2^{59}-1	4k+3	29 = {29}	{3*233*1103*2089*3033169}
2^{61}-1	4k+1	30 = {2*3*5}	{3^2*5^2*7*11*13*31*41*151*331*1321}
2^{67}-1	4k+3	33 = {3*11}	{3^2*7*23*89*683*20857*599479}

$2^{71}-1$ 4k+3 35 = {5*7} {3*11*31*43*127*281*86171*122921}

$2^{73}-1$ 4k+1 36 = {2^2*3^2} {3^3*5*7*13*17*19*37*109*241*433*38737}

$2^{79}-1$ 4k+3 39 = {3*13} {3^2*7*2731*8191*121369*22366891}

$2^{83}-1$ 4k+3 41 = {41} {3*13367*164511353*8831418697}

$2^{89}-1$ 4k+1 44 = {2^2*11} {3*5*17*23*353*397*683*2113*2931542417}

$2^{97}-1$ 4k+1 48 = {2^4*3} {3^2*5*7*13*17*193*241*257*673*65537*22253377}

$2^{101}-1$ 4k+1 50 = {2*5^2} {3*5^3*11*31*41*251*601*1801*4051*8101*268501}

$2^{103}-1$ 4k+3 51 = {3*17} {3^2*7*307*2143*2857*6529*11119*43691*131071}

$2^{107}-1$ 4k+3 53 = {53} {3*6361*69431*20394401*28059810762433}

$2^{109}-1$ 4k+1 54 = {2*3^3} {3^4*5*7*13*19*37*73*87211*246241*262657*279073}

$2^{113}-1$ 4k+1 56 = {2^3*7} {3*5*17*29*43*127*257*5153*15790321*54410972897}

$2^{127}-1$ 4k+3 63 = {3^2*7} {3^3*7^2*19*43*73*337*5419*92737*649657*77158673929}

$2^{131}-1$ 4k+3 65 = {5*13} {3*11*31*2731*8191*409891*7623851*145295143558111}

$2^{137}-1$ 4k+1 68 = {2^2*17} {3*5*17^2*953*26317*43691*131071*354689*2879347902817}