A formula that gives numbers ended in 1,3,7,9

Consider the next formula:

$$((p_n)^{8\mathrm{n}} - 1) \mp p_x{}^{4\mathrm{n}} = p$$

Where P is a prime number by varying the number one by 3,5,9 it will give a series of numbers ended in 1,3,7,9.

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sq=Table[j,{j,100000}]

sq1=Table[j,{j,9050}]

n=Select[sq,PrimeQ,(1000)]

sq=Table[j,{j,100000}]

b=Select[sq,PrimeQ,(1000)]

n1=(n^8-1)+(b^4)

x=Select[n1,CompositeQ,(1000)]

x11=Select[n1,PrimeQ,(1000)]
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$$((p_n)^{8\mathrm{n}} - 1) \mp p_x{}^{4\mathrm{n}} = \ \ldots 1$$

Result:

271,6641,391249,5767201,214373521,815759281,6975840961,16983693361,78311265121,500247120241,852891960961,3512481328081,7984928054881,11688203696401,23811291541441,62259698301841,146830449721681,191707326843121,406067697707761,645753556657441,806460120292321,1517108848856641,2252292279597361,3936588868444321,7837433682906241,10828567160341201,12667700926427041,17181861929398801,19925626558060081,26584442092111681,67675234501163521,86730203763506161,124

097930319955681,139353667584984721,242935033242013201,270281038647016801,369145195180959601,498311415024032881,604967117738931361,802359179371836721,1053960289915339441,1151936658896783761,1771197286983079681,1925122954306464001,2268453125455125841,2459374193121357601,3928797480372271921,6115597642364353921,7050287994933579121,7562821651670085841,8686550891053956961,10645920231047075521,11379844841934761281,15753961215783378001,19031148003963571201,22890010295325365281,27416893187817405361,29090710410417771841,34660765699441531921,38873223858858348961,41142576398467070161,54317648816690792401,78905450526524622001,87515123956784241121,92120163566584776481,101970394099344491761,144086718367756636561,166356282582417170881,210201493961487180241,220091573690375410801…

sq=Table[j,{j,100000}]

sq1=Table[j,{j,9050}]

n=Select[sq,PrimeQ,(1000)]

sq=Table[j,{j,100000}]

b=Select[sq,PrimeQ,(1000)]

n1=(n^8-3)+(b^4)

x=Select[n1,CompositeQ,(1000)]

x11=Select[n1,PrimeQ,(1000)]

$((p_n)^{8\mathrm{n}} - 3) \mp {p_x}^{4\mathrm{n}} =$…9

Result:

{269,6639,391247,5767199,214373519,815759279,6975840959,16983693359,78311265119,500247120239,852891960959,3512481328079,7984928054879,11688203696399,23811291541439,62259698301839,146830449721679,191707326843119,406067697707759,645753556657439,806460120292319,1517108848856639,2252292279597359,3936588868444319,7837433682906239,108285671603411

99,12667700926427039,17181861929398799,19925626558060079,26584442092111679,67675234501163519,86730203763506159,12409793031995567 9,13935366758498471 9,24293503324201319 9,27028103864701679 9,36914519518095959 9,49831141502403287 9,60496711773893135 9,80235917937183671 9,

sq=Table[j,{j,100000}]

sq1=Table[j,{j,9050}]

n=Select[sq,PrimeQ,(1000)]

sq=Table[j,{j,100000}]

b=Select[sq,PrimeQ,(1000)]

n1=(n^8-5)+(b^4)

x=Select[n1,CompositeQ,(1000)]

x11=Select[n1,PrimeQ,(1000)]

$((p_n)^{8n} - 5) \mp p_x{}^{4n}$ =...7

Result:

{267,391245,5767197,214373517,815759277,6975840957,16983693357,78311265117,500247120237,852891960957,3512481328077,7984928054877,11688203696397,23811291541437,62259698301837,146830449721677,191707326843117,406067697707757,645753556657437,806460120292317,1517108848856637,2252292279597357,3936588868444317,7837433682906237,10828567160341197,12667700926427037,17181861929398797,19925626558060077,26584442092111677,67675234501163517,86730203763506157,124097930319955677,139353667584984717,242935033242013197,270281038647016797,369145195180959597,498311415024032877,604967117738931357,802359179371836717,1053960289915339437,1151936658896783757,1771197286983079677,1925122954306463997,2268453125455125837,2459374193121357597,3928797480372

271917,6115597642364353917,7050287994933579117,756282165 1670085837,8686550891053956957,10645920231047075517,1137 9844841934761277,15753961215783377997,1903114800396357111 97,22890010295325365277,...

sq=Table[j,{j,100000}]

sq1=Table[j,{j,9050}]

n=Select[sq,PrimeQ,(1000)]

sq=Table[j,{j,100000}]

b=Select[sq,PrimeQ,(1000)]

n1=(n^8-9)+(b^4)

x=Select[n1,CompositeQ,(1000)]

x11=Select[n1,PrimeQ,(1000)]

$((p_n)^{8n} - 9) \mp {p_x}^{4n} =$...3

Result:

{263,6633,391241,5767193,214373513,815759273,6975840953,169 83693353,78311265113,500247120233,852891960953,3512481328 073,7984928054873,11688203696393,23811291541433,622596983 01833,146830449721673,191707326843113,406067697707753,645 753556657433,806460120292313,1517108848856633,2252292279 597353,3936588868444313,7837433682906233,108285671603411 93,12667700926427033,17181861929398793,19925626558060073, 26584442092111673,67675234501163513,86730203763506153,12 4097930319955673,139353667584984713,242935033242013193,2 70281038647016793,369145195180959593,498311415024032873, 604967117738931353,802359179371836713,105396028991533943 3,1151936658896783753,1771197286983079673,19251229543064 63993,2268453125455125833,2459374193121357593,3928797480 372271913,6115597642364353913,7050287994933579113,756282 1651670085833,8686550891053956953,10645920231047075513,1

137984484193476127 3,15753961215783377993,190311480039635
71193,22890010295325365273,