KyotoUx: 004x Fun with Prime Numbers: The Mysterious World of Ma...

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- TWIN PRIME

[OFFICIAL] Favorite Pair (A, B) of Relatively Prime Positive Integers

0 Votes

discussion posted 3 days ago by **mako9999** STAFF

PINNED

What is your favorite pair (A, B) of relatively prime positive integers? Write it on the Discussion forum. Find five prime numbers of the form KA+B (K=0,1,2,3...) for your choice of A,B and several K.

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330 responses

Add a Response

JohnSeers 1 Vote

3 days ago

At the moment I do not have a favourite pair. Perhaps if I work with relative primes a bit I will grow to like a pair. I will come back and post it here when that happens.

My favorite relatively prime positively prime numbers are 12 and 13. K=1, 2, 3, 5, 7.

posted 3 days ago by **Christine5165**

I agree with JohnSeers.

posted 3 days ago by **1089**

I am of the same inclination. I am enjoying this but can't honestly say I have a favorite pair. All numbers fascinate me.

posted 2 days ago by **guidryc**

5 3

posted 2 days ago by **madihahouri**

(A,B)=(6;7) 6*0+7=7 6*1+7=13 6*2+7=19

posted a day ago by **mariammanourama**

I agree too, maybe next week we can decide, for the moment all numbers are fascinating!

posted a day ago by **LaroncioK**

I agree! I don't feel like I know enough to understand all the implications of different pairs, so I can't pick a favorite one until I can see those things.

posted a day ago by **lindseymcal**

9, 5

posted a day ago by **JelenaJe**

I'll go with these five (11,31,41,51,61) for KA+B where A =5 , B = 1 K = 2 so (2*5) + 1 = 11 K = 6 so (6*5) + 1 = 31 K = 2 so (8*5) + 1 = 41 K = 2 so (10*5)+ 1 = 51 K = 2 so (12*5) + 1 = 61

posted a day ago by **davepete2010**

I'm with lindseymcal - I don't yet know enough to choose a favourite pair, but am thoroughly enjoying the exploration.

posted about 17 hours ago by **SusanU**

51=3*17

posted about 8 hours ago by **KurtCrowder**

I agree with u

posted about 6 hours ago by **Vijay_Shiv**

Add a comment

hurgadion

3 days ago

0 Votes

Hi, maybe (A,B)=(2,3), then K may be 0, 1, 2, 4, 5,

best regards, DJ

Add a comment

ClaudioBlanco

3 days ago

0 Votes

My choice is: A = 7, B = 10

K can be: 1, 3, 7, 9, 13

Yes

posted about 6 hours ago by **Vijay_Shiv**

Add a comment

BrianKieslich

3 days ago

4 Votes

No favorites, but how about (6, 1). 6*1 + 1 = 7, 6*2 + 1 = 13, 6*3 + 1 = 19, 6*5 + 1 = 31, 6*7 + 1 = 43. Hey, it look like I have found a funktion to produce prime numbers from prime numbers. Will look more into that tomorrow.

I am really fascinated with this!!

posted 2 days ago by **harris-alam**

6*19 + 1 = 115 - not a prime

posted a day ago by **eneagoe**

Yes

posted about 6 hours ago by **Vijay_Shiv**

Add a comment

madhuhrao

3 days ago

0 Votes

My choice is (5,8)

K = 1, 3, 7, 9, 13, 15, 19 ...

Ok

posted about 6 hours ago by **Vijay_Shiv**

Add a comment

BMackay

3 days ago

1 Vote

I made my 2 relative prime using the first 4 prime numbers, so they are A = 6 (2*3) and B = 35 (5*7) so when K=1 KA+B = 41 (prime) K=2 KA+B = 47 (prime) K=3 KA+B= 53 (prime) K=4 KA+B = 59 (prime) K=5 not prime K=6 KA+B = 71 (prime) I was amazed at how quickly the progression gave me 5 prime numbers!

Add a comment

valaiganesh

3 days ago

0 Votes

I made my 2 relative prime using the first 4 prime numbers, so they are A = 6 (2*3) and B = 35 (5*7) so when K=1 KA+B = 41 (prime) K=2 KA+B = 47 (prime) K=3 KA+B= 53 (prime) K=4 KA+B = 59 (prime) K=5 not prime K=6 KA+B = 71 (prime) I was amazed at how quickly the progression gave me 5 prime numbers!

Good

posted about 6 hours ago by **Vijay_Shiv**

Add a comment

CesarBarcia

3 days ago

0 Votes

I like (A,B)=(4,11). When k=0, we obtain 11. When k=2, we obtain 19 . When k=3, we obtain 23. When k=5, we obtain 31. When k=7, we obtain 43. (....) I hope you like my numbers !

Add a comment

alistairB

3 days ago

0 Votes

I also chose relative primes A = 6 and B = 35 using the first four primes. Using values of K = 1, 2, 3, 4, 6 generates primes 41, 47, 53, 59, 71

Add a comment

williamwun

3 days ago

0 Votes

Hi guys, my favorite relative primes are (14, 15).
Thus according to KA+B:

14 (1) + 15 = 29 14(2) + 15 = 43 14(3)+15 (not prime) 14(4) + 15 = 71 14(5) + 15 (not prime) 14(6) + 15 (not prime) 14(7) + 15 = 113 14(8) + 15 = 127

William Wun

Add a comment

jdiet

3 days ago

0 Votes

My choice is 4 and 15 4*k + 15 = (19,23,31,43,47, ... pour k=1,2,4,7,8, ...)

Add a comment

poomot

3 days ago

0 Votes

My choice: (A,B)=(14,15) # 14=2*7 15=3*5. I generates primes P = KA+B for example with K in (1,2,4,7,8). P will be 29 43 71 113 127.

14 15 4 71 14 15 6 99 14 15 8 127 14 15 10 155 14 15 12 183 14 15 14 211 14 15 16 239 14 15 18 267 14 15 20 295 14 15 22 323 14 15 24 351

posted a day ago by **Dia6**

I believe I am getting it! Thanks for splitting your numbers.

posted a day ago by **Dia6**

Add a comment

Robangelo

3 days ago

0 Votes

A = 22, B = 21. B + K*A = 43 (K=1) ; 65 (K=2) ; 87(K=3); 109 (K=4) ...

Add a comment

Dornchen

3 days ago

1 Vote

My numbers are A= 2 and B = 5. K = 0, 1, 3, 7 and 9 - resulting in 5, 7, 17, 37 and 47

Good choice^^

posted about 2 hours ago by **BenMenzel**

Add a comment

SalixDW

3 days ago

0 Votes

Hi guys! I haven't got "favorite" relative prime pair, but here is one: A = 6 (2*3); B = 35 (5*7); when K=1, KA+B = 41 (prime) K=2, KA+B = 47 (prime) K=3, KA+B

= 53 (prime) K=4, KA+B = 59 (prime) K=5, KA+B = 65 (not prime) K=6, KA+B = 71 (prime) K=7, KA+B = 77 (not prime) K=8, KA+B = 83 (prime) K=9, KA+B = 89 (prime) K=10, KA+B = 95 (not prime)

I agree... no favorite numbers so picked the lowest... 2 3

I liked the way you split your numbers into primes. Thanks, it helps with my understanding.

posted a day ago by **Dia6**

Add a comment

kauikahano

3 days ago

0 Votes

4, 9

When K=1, 2, 5, 7, 11 P=13, 17, 29, 37, 53

Add a comment

tatper

3 days ago

0 Votes

2,7

So K could be 0 (=7), 2(=11), 3(=13), 5(=17) and 6 (=19).

posted a day ago by **Z12**

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Maxiel

3 days ago

0 Votes

My choice: A = 4, B = 9. Then the following K*A+B integers are prime: 13, 17, 29, 37 and 41

Add a comment

tajger

3 days ago

0 Votes

My favourite number is 4, so I choose pair (4, 3). Five prime numbers following the recipe P = A * K + B, where A = 4 and B = 3, (relatively prime) are: 7 (K = 1), 11 (K = 2), 19 (K = 4), 23 (K = 5), 31 (K = 7).

Add a comment

123johanlindeberg

3 days ago

0 Votes

6*K+5 -> 5, 11, 17, 23, 29. 6=2*3, So it consists of the first prime numbers 2, 3 and 5.

Add a comment

Vikash-G

3 days ago

0 Votes

(A,B)=(5,8) K=8,13,18...

Add a comment

anactheo

3 days ago

0 Votes

A= 6 B=35. K =1,2, 3, 4, 6, 8, 9, 11, 12, 13, 16, 17, 19

P= 41, 47, 53, 59, 71, 83, 89, 101, 107, 113, 131, 137, 149

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neelbhowmik

0 Votes

3 days ago

Hi, A= 2 & B = 3 P = [3, 5,7,11,13] for K = [0,1,2,4,5]

Add a comment

hotdnow

0 Votes

3 days ago

If A = 2 and B = 3, one gets the following results:

K = 0: P = 3

K =2: P = 7

K = 4: P = 11

K = 5: P = 13

K = 7: P = 17

Thanks!

Good

posted about 6 hours ago by **Vijay_Shiv**

Add a comment

hannes4

0 Votes

3 days ago

I pick (A,B) = (2,3) Then KA+B for K=0,1,2,4,5 yields the primes 3, 5, 7, 11, 13

me too

posted 2 days ago by **Elyasin**

Hey, those are the same ones I picked too!

posted 2 days ago by **tongkiat**

Alternatively, pick A = 3, B = 4. A and B are relatively prime. K = 1, 3, 5, 9 , 11, 13, 19, ...

- K = 1, KA + B = 7
- K = 3, KA + B = 13
- K = 5, KA + B = 19
- K = 9, KA + B = 31
- K = 11, KA + B = 37
- K = 13, KA + B = 43
- K = 19, KA + B = 61

posted 2 days ago by **tongkiat**

Yup.. Me too

posted a day ago by **yeoinho324**

I picked 6 and 17 but I'm not sure if they are favorites. When K= 1,2,3,5,7,11, then P=23, 29, 35, 47, 59, 73

posted about 9 hours ago by **PuffinM**

Add a comment

sandipan_dey

less than a minute ago

0 Votes

My favorite pair is (9, 16), A=9, B=16, with the following primes of the form kA+B: k=3, p_1 = 43 k=5, p_2 = 61 k=7, p_3 = 79 k=9, p_4 = 97 k=15, p_5=151

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