Congratulations for getting to this stage! Solve these two final puzzles and get additional points from the RSA Quest Quiz!

# DecipherCommonDivisor puzzle

#### Use these as parameters of

**DecipherCommonDivisor(first\_ciphertext,first\_modulo,first\_exponent,second\_ciphertext,second\_modulo,second\_exponent)** in your RSA Quest Notebook to get the first and the second parts of the final answer! Note that some of the parameters are on the next page.

#### first\_ciphertext:

 $23402197839825692972957660045778005842149570897525565884030609841447497251897989\\69944187886435682707638291414450330632782519558661235955542477449098203758223706\\69949745976809501588939911418483420870057397745635103162194628349988564663958542\\39468748012474813939969736279381474141408975441930226654470509840545902057273419\\52958631942099695363524604763251713334383761401696461176748766477109713824295638\\43588752359544552425255959519029769924048079981736146282248680473335994828268292\\14633744976147539512358779840250950906473302037621404671062661398282452008807449\\216135596254412709706306612180825630285207$ 

### first\_modulo:

 $58430823052528382232133162302686450950325469505875659240893229402912849840784309\\ 39880791006591482769392765437908769169934387246343186382052840420623862137503413\\ 42232245508982366352770144858028121698429238925450645063827509145061317334217556\\ 20169771252068722149093463194110389888198706547399113274669324939230289590384817\\ 28222006681562151569436177698760612422416613963288292397245546568716336589287340\\ 73771541865829202329837322640419614255197258678023584138173838594688526441749517\\ 34478657652205963797131615641353571742901542970047092056441684257125633460892715\\ 564219695534982132772847099500990153159493$ 

#### first exponent:

2746118316073165006639038412489080229254239843347153634155286882078957003180 280976570735902213132927273096496684341374829942796710900231180504644399747

#### second ciphertext:

 $30727040453983198346085853479092007121170298341280644429200282752975717255888449\\ 50848455160588121610317370817106044792955922551008270509007724543503222639431533\\ 40655537064816139136035344703946704371849477221551531142092681932350421407369230\\ 23590768685692783514873340402355775735846109759697748120233777810481952073715032\\ 87730490209775044598186907618266662202947369466992017246871677993734867386817129\\ 43626209031159036458732895643671768514349729378485919024686044000910510943423041\\ 22317377572964272370825515688006084797380707045470951321039467067019460709497651\\ 682710286878824565888446939229639383746$ 

#### second\_modulo:

42955660491543430460148980223483714568674234383080724206879432109744068992302351872678094322626198782875395264399683702531442650135501135314224418412956329257244753538669224867463416933578848236691757751760346388773871177654731330626106150400017398309330888903195999995955385444097920846918948184509773583149893677181571427932535786503554494314244294387551141996689565647925375574586590998569956897670722964200467030891957754959187718494336504559943885199686487499306417596091732019643533054349876912582987170110689841980733691588287144182824378328622431439004258091442919814253322774125364502939460173

#### second exponent:

1696307946163562648509752484630349193234799326977939859599277182356207670242 676510190455023892125378267322231053560789876259990406520567562708111385869

# DecipherHastad puzzle

Then use these as parameters of

**DecipherHastad(first\_ciphertext,first\_modulo,second\_ciphertext,second\_modulo)** in your RSA Quest Notebook to get the third - and last - part of the final answer!

#### first\_ciphertext:

16959258189347019585367326064710071478716977737288813059814263830041258881875310 96540654444788889942827682032651915812560

#### first\_modulo:

20197030972629441437452373457106266016165893441966124472330412789454203038950667 74752152001687355425741826173570952817341

# second\_ciphertext:

43818048107104408709604817351958636909129350389181045955809852165565950075240555 3498472135529822589328291372879622802017

#### second\_modulo:

96891450635379785327434081793611116423656275489810521442209514964160404253104024 3209810736059746240506447210425767208577

Concatenate the parts to get the final answer, copy, paste and submit it to the quiz "RSA Quest - Quiz"!