

1. Kriptanalisis pada Cipher Abjad-Tunggal

Sumber: <https://theory.stanford.edu/~gdurf/durfee-thesis-phd.pdf> (Introduction)

CRYPTOLOGY IS THE STUDY OF SECRET CODES IN SPEAKING OF CRYPTOLOGY WE DISCUSS TWO MAIN BRANCHES: CRYPTOGRAPHY IS CONCERNED WITH THE WRITING OF MESSAGES IN SECRET CODE AND THE CREATION OF THESE METHODS WHILE CRYPTANALYSIS IS CONCERNED WITH READING ENCRYPTED MESSAGES BY BREAKING SECRET CODES. ANCIENT TIMES SAW MANY EXAMPLES OF CRYPTOGRAPHY OVER THREE THOUSAND YEARS AGO. EGYPTIANS SCRIBES MADE USE OF HIEROGLYPHIC TRANSFORMATION TO OBSCURE THE MEANING OF WRITTEN MESSAGES. MESOPOTAMIAN AND BABYLONIANS SCRIBES EMPLOYED SIMILAR TECHNIQUES TO RENDER CUNEIFORM TABLETS UNREADABLE TO THE UNINITIATED. THE GREEKS EMPLOYED CRYPTOGRAPHY AND THE CLOSELY RELATED STEGANOGRAPHY WHICH IS CONCERNED WITH CONCEALING THE EXISTENCE OF COMMUNICATION RATHER THAN CONTENT FOR MILITARY AND TACTICAL PURPOSES. EVEN THE KAMA SUTRA OF ANCIENT INDIA TOUCHES ON CRYPTOGRAPHY LISTING SECRET WRITING AS ONE OF THE SIXTYFOUR FUNDAMENTAL ARTS. HUNDREDS OF OTHER EXAMPLES OCCUR IN ANCIENT CIVILIZATIONS. IN SHORT CRYPTOGRAPHY HAS APPEARED MORE OR LESS SPONTANEOUSLY IN EVERY CULTURE IN WHICH LITERACY HAS BECOME WIDESPREAD. CRYPTANALYSIS ON THE OTHER HAND TOOK CONSIDERABLY LONGER TO DEVELOP AS A RIGOROUS SUBJECT OF STUDY. THE EARLIEST SURVIVING DESCRIPTIONS OF SYSTEMATIC METHODS OF CODE BREAKING COME FROM FIFTEENTH CENTURY IN THE ARABIC ENCYCLOPEDIA SUBH ALASHAIT WHICH GIVES THE FIRST KNOWN WRITTEN DESCRIPTION OF THE TECHNIQUE OF FREQUENCY ANALYSIS WHERE THE FREQUENCIES OF LETTERS AND LETTER GROUPINGS OF A LANGUAGE ARE USED TO UNRAVEL SECRET CODES. CRYPTOLOGY HAS PLAYED A ROLE IN POLITICAL AND MILITARY MATTERS FROM MEDIEVAL TIMES THROUGH THE CENTURY. PERHAPS MOST FAMOUS IS THE CRYPTOLOGIC EFFORT OF GREAT BRITAIN AND THE UNITED STATES DURING WORLD WAR II. THE EFFORTS OF THIRTY THOUSAND EMPLOYEES AT BRITAIN'S BLETCHLEY PARK IN CRYPTANALYZING GERMAN YSIGMATRANSMISSIONS IS SAID TO HAVE SHORTENED THE WAR BY SEVERAL YEARS AND LED TO THE DEVELOPMENT OF THE FIRST DIGITAL COMPUTER. COLOSSUS SIMILAR EFFORTS IN THE UNITED STATES TO BREAK JAPANESE CODES AIDED AMERICAN INTELLIGENCE IN THE WAR. CONVINCING AMERICAN AUTHORITIES OF THE IMPORTANCE OF CRYPTOLOGIC EXPERTISE AND EVENTUALLY LEADING TO THE ESTABLISHMENT OF THE NATIONAL SECURITY AGENCY. IN WITH THE RISE OF DIGITAL COMPUTER NETWORKS IN THE SECURING COMMUNICATION BECAME AN INCREASINGLY IMPORTANT TASK IN THE PRIVATE SECTOR AS WELL. THE NEEDS OF THE BANKING INDUSTRY IN PARTICULAR FOR SECURED DIGITAL COMMUNICATION BECAME ESPECIALLY URGENT DEVELOPMENTS AT IBM LED TO THE DESIGN OF LUCIFER ONE OF THE FIRST PUBLIC CIPHERS FOR COMPUTER COMMUNICATION. THE NATIONAL SECURITY AGENCY OFFERED SEVERAL IMPROVEMENTS TO LUCIFER AND IN THE NATIONAL BUREAU OF STANDARDS PRESENTED THE MODIFIED VERSION AS THE DATA ENCRYPTION STANDARD OR DES. THIS IS THE FIRST PUBLIC STANDARD FOR ENCRYPTION BEGAN TO GAIN WIDESPREAD USE AS A METHOD OF SECURING COMMUNICATION IS CALLED A CRYPTOSYSTEM. THE SENDER ENCRYPTS OR ENCIIPHERS A MESSAGE USING AN ENCRYPTIONALGORITHM TOGETHER WITH A SECRET KEY. THIS PRODUCES A CIPHERTEXT WHICH IS SENT TO THE RECIPIENT. THE RECIPIENT WHO ALSO POSSESSES A KEY RECEIVES THE CIPHERTEXT AND DECRYPTS OR DECIIPHERS USING THE KEY TO RECOVER THE ORIGINAL MESSAGE CALLED THE PLAINTEXT. IN THE HISTORY OF CRYPTOLOGY UP TO ALL CRYPTOSYSTEMS REQUIRED THE SENDER AND THE RECEIVER TO AGREE BEFOREHAND ON THE SAME KEY. A KEY THAT HAD TO BE RIGOROUSLY PROTECTED FROM EXPOSURE TO AN ADVERSARY.

HIS IS KNOWN AS SYMMETRIC OR SECRET KEY CRYPTOGRAPHY ARRANGING TO SHARE A SECRET KEY BETWEEN TWO PARTIES IS OFTEN A DIFFICULT PROBLEM AND DOES NOT SCALE WELL TO SCENARIOS IN WHICH MANY INDIVIDUALS OR COMPUTERS MIGHT COMMUNICATE WITH EACH OTHER. IN MARTIN HELLMAN A PROFESSOR AT STANFORD UNIVERSITY AND WHITEFIELD D. DUFFIE A GRADUATE STUDENT INTRODUCED THE CONCEPT OF ASYMMETRIC OR PUBLIC KEY CRYPTOGRAPHY IN THEIR SEMINAL PAPER NEW DIRECTIONS IN CRYPTOGRAPHY. THEY SPECULATED THAT A METHOD OF ENCRYPTION MIGHT EXIST IN WHICH THE ENCRYPTION KEY DIFFERED FROM THE DECRYPTION KEY. IN SUCH A SCHEME A USER'S ENCRYPTION KEY COULD BE ANNOUNCED TO THE PUBLIC AND ANY OUTSIDER COULD OBTAIN THIS PUBLIC ENCRYPTION KEY AND USE IT TO SEND ENCRYPTED MESSAGES TO THE USER SINCE ONLY THE USER WOULD POSSESS THE DECRYPTION KEY. ONLY SHE COULD OBTAIN THE DECRYPTION OF THE MESSAGE. PUBLIC KEY CRYPTOGRAPHY ALSO OPENED DOORS FOR MANY OTHER APPLICATIONS SUCH AS DIGITAL SIGNATURES AND ELECTRONIC CASH. THE CONCEPT OF PUBLIC KEY CRYPTOGRAPHY CIRCULATED IN THE RESEARCH COMMUNITY FOR SOME TIME BEFORE THE FIRST PRACTICAL PROPOSAL FOR SUCH A SCHEME WAS MADE IN AUGUST. THAT'S A PUBLIC KEY CRYPTO SYSTEM NAMED AFTER INVENTOR RON RIVEST. ADI SHAMIR AND LEN ADLEMAN WAS INTRODUCED IN MARTIN GARDNER'S COLUMN ON MATHEMATICAL GAMES IN SCIENTIFIC AMERICAN. THAT'S A CRYPTO SYSTEM OUTLINED IN SECTION 8. HAS SURVIVED OVER TWENTY YEARS OF STUDY BY CRYPTANALYSTS IN THE PUBLIC SECTOR AND IT IS THE MOST WIDELY USED PUBLIC KEY CRYPTO SYSTEM IN THE WORLD. IT IS USED AMONG OTHER PLACES IN THE SET PROTOCOL FOR SECURE CREDIT CARD TRANSACTIONS AND THE SSL PROTOCOL FOR SECURE COMMUNICATION ON THE INTERNET. PUBLIC DISCUSSION AND RESEARCH IN CRYPTOGRAPHY IN BUSINESS AND ACADEMIA STARTED IN THE LAST QUARTER OF THE 20TH CENTURY AND CONTINUES AT A FURIOUS RATE. NEW METHODS FOR ENCRYPTION ARE PUBLICLY ANNOUNCED. RESEARCHERS THEN STUDY THESE METHODS FOR WEAKNESSES BY APPLYING THE TOOLS OF CRYPTANALYSIS. ONLY AFTER INTENSE PUBLIC SCRUTINY DOES A NEW CRYPTO SYSTEM GAIN A SENSE OF LEGITIMACY. STUDYING AND USING METHODS FOR BREAKING CRYPTO SYSTEMS IS AN ESSENTIAL STEP IN THE DEVELOPMENT OF NEW DESIGNS FOR MORE SECURE CRYPTO SYSTEMS. BY LEARNING HOW THINGS BREAK WE LEARN HOW TO MAKE THEM STRONGER. IT IS IN THIS SPIRIT THAT THIS THESIS IS WRITTEN. THIS WORK USES MATHEMATICAL TOOLS TO STUDY THAT'S A PUBLIC KEY CRYPTO SYSTEM AND SEVERAL VARIANTS. WE USE TOOLS FROM NUMERICAL ALGEBRA AND THE GEOMETRY OF NUMBERS TO GET OUR RESULTS. ALGEBRAIC CRYPTANALYSIS HAS PROVEN TO BE ONE OF THE MOST EFFECTIVE METHODS IN THE STUDY OF PUBLIC KEY CRYPTO SYSTEMS.

Kunci:

YKXCEGOZLJIWPFVRVQBAHUNTDMS

2. Metode Kasiski

Sumber plain teks: <https://www.itb.ac.id/history>

Plain teks:

THE HISTORY OF ENGINEERING UNIVERSITY IN INDONESIA DATES BACK TO THE 19TH CENTURY WHEN THE DUTCH COLONIAL GOVERNMENT ESTABLISHED THE TECHNISCHE HOOGESCHOOL TE BANDUNGTION ON JULY ON A HECTARE PLOT OF LAND IN BANDUNG. AT THAT TIME THERE WAS ONLY ONE FACULTY OF FACULTY OF CIVIL ENGINEERING. THE TECHNISCHE WETENSCHAP AND ONLY ONE MAJOR NAMELY DEAF DEELING DER WEGEN WATERBOUW. THE ESTABLISHMENT OF THIS ENGINEERING SCHOOL WAS TO FULFILL THE NEEDS OF TECHNICAL PERSONNEL OR ENGINEERS DUE TO THE OUTBREAK OF THE FIRST WORLD WAR. THE

FIRST ACADEMIC YEAR OF THE BANDUNG WAS UNIQUE BECAUSE THE BANDUNG ONLY GOT STUDENTS AND TWO OF THEM ARE INDONESIAN MEANWHILE THERE WERE PROFESSORS AT THE BEGINNING OF FOUR YEARS LATER ON TWELVE STUDENTS GRADUATED FROM THE BANDUNG THE BANDUNG WAS A B I J ZONDE RESCHOOL WHICH LATER CHANGED ITS STATUS AS A STATE OWNED CAMPUS ON JULY THE THANNIVE RSARY OF THE BANDUNG STUDENTS GRADUATED AS ENGINEERS AND OF THEM ARE INDONESIAN THAT MOMENT IS REMARKED AS THE FIRST TIME INDONESIAN ENGINEERS HAVE GRADUATED FROM THE BANDUNG OUR FOUNDING FATHER IR SOEKARNO WAS ONE OF THE GRADUATES LATER HE BECAME THE FIRST PRESIDENT OF THE REPUBLIC OF INDONESIA DURING THE JAPANESE OCCUPATION IN THE CHANGED ITS NAME TO BANDUNG KOGYODAI GAKUBK DAN BECAME BANDUNG TECHNICAL COLLEGE SEKOLAHTINGGI TEKNIK BANDUNG AFTER INDONESIA INDEPENDENCE FURTHERMORE IN THE BANDUNG HAD MOVED TO YOGYAKARTA AS THE BANDUNG IN JOGJAWA WHICH LATER BECAME GADJAH MADA UNIVERSITY YUGMUNJUNEST THE BANDUNG CHANGED ITS NAME INTO UNIVERSITEIT VAN INDONESIA UNDER THE CONTROL OF NICA WITH FACULTEIT VAN TECHNISCHE WETENSCHAP AND FACULTEIT VAN NEXACTE WETENSCHAP WHICH WERE ESTABLISHED LATER AFTER A LONG STORY IN UNIVERSITEIT VAN INDONESIA JOINED UNIVERSITY OF INDONESIA AS FACULTY OF ENGINEERING AND FACULTY OF NATURAL SCIENCES ENCOURAGED BY IDEAS AND BELIEFS BASED ON INDONESIANS STRUGGLE TO GET INDEPENDENCE AND OUR BRIGHT FUTURE THE INDONESIAN GOVERNMENT INAUGURATED THE ESTABLISHMENT OF BANDUNG INSTITUTE OF TECHNOLOGY ON MARCH IN CONTRAST TO THE FIVE PREVIOUS ENGINEERING SCHOOLS ON THE SAME CAMPUS INSTITUT TEKNOLOGI BANDUNG WAS BORN IN AN ATMOSPHERE FULL OF DYNAMIC CARRYING THE MISSION OF DEVOTION TO SCIENCE AND TECHNOLOGY AND BUILDING A DEVELOPED GENERATION FOR THE FUTURE DURING THE FIRST DECADE OF THE ITB BEGANTO FOSTER UP AND DEVELOP ITSELF WITH THE STATUTES DURING THIS PERIOD PREPARATIONS WERE MADE REGARDING THE EDUCATIONAL AND TEACHING ORGANIZATIONS WHILE ALSO FULFILLING THE NUMBER OF TEACHING STAFF AND INCREASING THEIR SKILL BY ASSIGNING THEM TO STUDY ABROAD DURING THE SECOND DECADE OF THE ITB WAS MUDDLED WITH DIFFICULTY THAT AROSE TOWARDS THE FIRST PERIOD THE ACADEMIC UNIT THAT HAD BEEN FORMED WAS TRANSFORMED INTO A WORK UNIT THAT ALSO CONCURRENTLY FUNCTIONS AS A SOCIO ECONOMIC UNIT THAT IS LIMITED TO BEING A SEMI AUTONOMOUS INSTITUTION THE LEVEL OF ACADEMIC WAS INCREASING BUT THE ASSIGNMENT TO STUDY ABROAD WAS DECREASING INTERNAL FACILITIES AND STATUTES WERE INCREASINGLY UTILIZED DURING THE THIRD DECADE OF THE ITB IMPROVEMENT IS MARKED BY THE MOVEMENT OF THE STATUTES AND TEACHING LEARNING PROCESS TOWARDS A MODERN RATHER THAT WAS EQUIPPED WITH MORE CAMPUS FACILITIES THE NUMBER OF GRADUATES INCREASED AND POSTGRADUATE PROGRAMS HAD ALSO BEGUN TO START THIS SITUATION WAS SUPPORTED BY THE IMPROVEMENT OF THE COUNTRY'S SOCIO POLITICAL AND ECONOMIC GROWTH DURING THE FOURTH DECADE OF THE ENGINEERING UNIVERSITY THAT PRIORLY ONLY HAD ONE DEPARTMENT NOW OFFERS TWENTY SIX BACHELOR PROGRAM DEPARTMENTS INCLUDING THE DEPARTMENT OF SOCIO TECHNOLOGY ALONG WITH THIRTY FOUR MASTER PROGRAMS AND THREE DOCTORAL STUDIES THESE PROGRAMS INCLUDE THE ELEMENTS OF SCIENCE TECHNOLOGY ART BUSINESS AND HUMANITIES THIS DECADE LED ITB TO A NEW CENTURY THAT IS MARKED BY THE EMERGENCE OF BETTER CONCEPTS AND IDEAS FOR ITS DEVELOPMENT PROCESS SOME OF THEM INCLUDE THAT THE RAPID GROWTH OF INFORMATION FLOW IN THE NEW CENTURY WILL DEMAND AN EDUCATION THAT IS ACCELERATED TIMELY INTEGRATED SUSTAINABLE AND THE BEST INVESTMENT EFFORT RELATED TO THIS ITB IS WILLING TO BUILD ITS BACHELOR PROGRAM ON A SOLID FOUNDATION OF BASIC SCIENCE PROFICIENCY SO THAT ITS GRADUATES WILL BE ABLE TO ADAPT TO RAPID ENVIRONMENTAL CHANGES MEANWHILE THE POSTGRADUATE PROGRAM IS THE PIONEER TO ENHANCING QUAL

ITY AND QUANTITY EFFICIENCY AND EFFECTIVENESS AS WELL AS ITS RELEVANCE TOWARDS THE NEEDS SO THAT IT CONTRIBUTES TO THE NATIONAL DEVELOPMENT WILL BE GREATER AND MORE MEANINGFUL THAT THE PROFICIENCY AND DEVELOPMENT OF SCIENCE AND TECHNOLOGY MUST BE CARRIED OUT IN TACT AND INTEGRATED AS IN THE ROLE OF RESEARCH AND DEVELOPMENT UNIVERSITY ITS DEVELOPMENT IN SCIENCE AND TECHNOLOGY IS BASED ON THE PURPOSE TO BOOST THE NATION'S DEVELOPMENT PLAN THEREFORE IT WILL DEVELOP ITSELF IN RESEARCH AND MANUFACTURE COMMUNICATION AND INFORMATION TECHNOLOGY LAND SEA AND AEROSPACE TRANSPORTATION ENVIRONMENT AND BIOTECHNOLOGY AND BIOSCIENCES THAT THE MISSION OF COMMUNITY SERVICE IS EXPECTED TO BE ABLE TO BUILD BUSINESS INSIGHTS INTO INDEPENDENCE WHICH IS THE INITIAL CAPITAL FOR THE MAINTENANCE OF HIGHER EDUCATION AUTONOMY BUSINESS INSIGHT FOR INDEPENDENCE IS DIRECTED TO REACH ACTIONABLE ACHIEVEMENT AND THE DUTY OF EDUCATION AND ACADEMIC AS HIGH AS POSSIBLE THAT THE DEVELOPMENT OF IT WILL BE BASED ON THE STRENGTHS OF THE INSTITUTION IN THE FORM OF OPTIMUM USE OF INFORMATION THE MAINTENANCE OF COMPETENT TEACHING STAFF WITH HIGH QUALITY SKILLS AND HIGH DEVOTION INTEGRATED EDUCATION SYSTEM AND CLOSE COLLABORATION WITH GOVERNMENT INDUSTRY RESEARCH INSTITUTIONS AS WELL AS DOMESTIC AND OVERSEAS EDUCATION INSTITUTIONS THE DEVELOPMENT IS EXPECTED TO BE MONITORED AND MEASURED SO IT IS IN LINE WITH THE THREE PILLARS OF HIGHER EDUCATION DEVELOPMENT OF HUMAN RESOURCES FACILITIES STANDARD AND WORK PROCEDURES AS WELL AS THE ECONOMIC SOCIO CULTURAL AND SAFETY DEVELOPMENT THAT THE WILLINGNESS TO DEVELOP IT IS REFLECTED BY THE EXCITEMENT AND MINDSET OF ALL ITS STAKEHOLDERS WHO ACKNOWLEDGE THE NATURE OF SCIENTIFIC FACT THAT THE SCIENTIFIC REALITY CAN BE REACHED BY OBSERVATION FOLLOWED BY LOGICAL STUDY THAT THE DISCOVERY OF SCIENTIFIC TRUTH IS THE RIGHT OF EVERY HUMAN BEING SO THAT SCIENCE AND TECHNOLOGY CAN BE USED TO IMPROVE HUMAN WELFARE IN THE WORLD ESPECIALLY IN INDONESIA IN THE FIFTH DECADE OF THE INSTITUTION TEKNOLOGI BANDUNG'S LEGAL STATUS WAS SET TO BE STATE OWNED UNIVERSITY ACCORDING TO THE GOVERNMENT REGULATION NO. 01 OF DECEMBER STATE OWNED UNIVERSITIES WERE SOMETHING UNIQUE AND NEW BY THEN THIS BEGAN WITH THE ISSUANCE OF GOVERNMENT REGULATION NO. 01 OF THE ESTABLISHMENT OF STATE OWNED UNIVERSITIES AS A LEGAL BODY FOLLOWED BY THE ISSUANCE OF GOVERNMENT REGULATION NO. 01 OF THE ESTABLISHMENT OF INSTITUTION TEKNOLOGI BANDUNG AS STATE OWNED UNIVERSITY THUS WITH THE ISSUANCE OF THE LATTER REGULATION IT HAS LEGALLY BECOME A LEGAL BODY THIS MEANS IT HAD THE RIGHT TO CARRY OUT LEGAL ACTIONS AS LONG AS FOLLOWING VALID REGULATIONS WITH THE ISSUANCE OF GOVERNMENT REGULATION NO. 01 OF 1993 BETWEEN UNIVERSITIES WHICH WAS DRIVEN BY GLOBALIZATION BECAME THE FIRST CONSIDERATION TO BOOST COMPETITIVENESS IN INDONESIAN UNIVERSITIES THAT CAN CREATE DEMOCRATIC INDEPENDENT CITIZENS THAT CAN COMPETE GLOBALLY IN ORDER TO ACHIEVE THAT UNIVERSITIES INCLUDING ITB NEED TO BE INDEPENDENT AUTONOMOUS AND THUS HAVING BIGGER RESPONSIBILITIES ON JULY ITB CELEBRATES ITS 100TH YEAR ANNIVERSARY NOW ITB HAS GRADUATED ALUMNI WHO HAVE SIGNIFICANT ROLES IN DEVELOPING THE COUNTRY ITB NOW HAS FACULTIES SCHOOLS STUDY PROGRAMS RESEARCH GROUPS RESEARCH CENTERS AND CENTERS OF EXCELLENCE CURRENTLY ITB HAS MORE THAN THOUSAND ACTIVE STUDENTS ACADEMIC STAFFS AND PROFESSORS ITB NOW HAS TWO MAIN CAMPUS GANESACAMPUS AND JATINANGOR CAMPUS ITB HAS ALSO BECOME THE LEADING NATIONAL UNIVERSITY AND A LEADER IN THE DEVELOPMENT OF RESEARCH TECHNOLOGY AND ARTS IN INDONESIA

Kunci: CHEONKIMSONG

Alfabet normal

3. Kriptanalisis *Playfair Cipher*

Sumber: Harry Potter and the Philosopher's Stone (Chapter 1)

MRANDMRS DURSLEY OF NUMBER FOUR PRIVET DRIVE WERE PROUD TO SAY THAT THEY WERE PERFECTLY NORMAL. THANK YOU VERY MUCH. THEY WERE THE LAST PEOPLE YOU EXPECT TO BE INVOLVED IN ANYTHING STRANGE OR MYSTERIOUS BECAUSE THEY JUST DIDN'T HOLD WITH SUCH NONSENSE. MR DURSLEY WAS THE DIRECTOR OF A FIRM CALLED GRUNNINGS WHICH MADE DRILLS. SHE WAS A BIG BEEFY MAN WITH A HARDLY ANY NECK. ALTHOUGH HE DID HAVE A VERY LARGE MOUSTACHE. MR DURSLEY WAS THIN AND BLONDE AND HAD NEARLY TWICE THE USUAL AMOUNT OF NECK WHICH CAME IN VERY USEFUL AS SHE SPENT SO MUCH OF HER TIME CRANING OVER GARDEN FENCES SPYING ON THE NEIGHBOURS. THE DURSLEYS HAD A SMALL SON CALLED DUDLEY AND IN THE IROPINION THERE WAS NO FINER BOY ANYWHERE. THE DURSLEYS HAD EVERYTHING THEY WANTED BUT THEY ALSO HAD A SECRET AND THE IRGREATEST FEAR WAS THAT SOMEBODY WOULD DISCOVER IT. THEY DIDN'T THINK THEY COULD BEAR IT IF ANYONE FOUND OUT ABOUT THE POTTERS. MRS POTTER WAS MR DURSLEY'S SISTER BUT THEY HADN'T MET FOR SEVERAL YEARS. IN FACT MR DURSLEY PRETENDED SHE DIDN'T HAVE A SISTER BECAUSE HER SISTER AND HER GOOD FOR NOTHING HUSBAND WERE AS UNDESIRABLE AS DUDLEY. IS HAS IT WAS POSSIBLE TO BE THE DURSLEYS SHUDDERED TO THINK WHAT THE NEIGHBOURS WOULD SAY IF THE POTTERS ARRIVED IN THE STREET. THE DURSLEYS KNEW THAT THE POTTERS HAD A SMALL SON TOO BUT THEY HAD NEVER EVEN SEEN HIM. THIS BOY WAS ANOTHER GOOD REASON FOR KEEPING THE POTTERS AWAY. THEY DIDN'T WANT DUDLEY MIXING WITH A CHILD LIKE THAT. WHEN MR AND MRS DURSLEY WOKE UP ON TUESDAY MORNING THEY WERE SURPRISED TO FIND THE HOUSE QUIET. THERE WAS NOTHING ABOUT THE CLOUDY SKY OUTSIDE TO SUGGEST THAT STRANGE AND MYSTERIOUS THINGS WOULD SOON BE HAPPENING. ALL OVER THE COUNTRY MR DURSLEY HUMMED AS HE PICKED OUT HIS MOST BORING TIE FOR WORK AND MRS DURSLEY GOSSIPED AWAY HAPPILY AS SHE WRESTLED A SCREAMING DUDLEY INTO HIS HIGH CHAIR. NONE OF THEM NOTICED A LARGE TAWNY OWL FLUTTER PAST THE WINDOW AT HALF PAST EIGHT. MR DURSLEY PICKED UP HIS BRIEF CASE PECKED MRS DURSLEY ON THE CHEEK AND TRIED TO KISS DUDLEY GOODBYE BUT MISSED BECAUSE DUDLEY WAS NOW HAVING A TANTRUM AND THROWING HIS CEREAL AT THEM. ALL SLITTLE TYKE CHORTLED. MR DURSLEY AS HE LEFT THE HOUSE HE GOT INTO HIS CAR AND BACKED OUT OF NUMBER FOUR DRIVE. IT WAS ON THE CORNER OF THE STREET THAT HE NOTICED THE FIRST SIGN OF SOMETHING PECULIAR. A CAT READING A MAP FOR A SECOND. MR DURSLEY DIDN'T REALISE WHAT HE HAD SEEN THEN HE JERKED HIS HEAD AROUND TO LOOK AGAIN. THERE WAS A TABBY CAT STANDING ON THE CORNER OF PRIVET DRIVE BUT THERE WASN'T A MAP. INSIGHT. WHAT COULD HE HAVE BEEN THINKING OF? IT MUST HAVE BEEN A TRICK OF THE LIGHT. MR DURSLEY BLINKED AND STARED AT THE CAT. IT STARED BACK. AS MR DURSLEY DROVE AROUND THE CORNER AND UP THE ROAD HE WATCHED THE CAT IN HIS MIRROR. IT WAS NOW READING THE SIGN THAT SAID PRIVET DRIVE. NO LOOKING AT THE SIGN. CATS COULDN'T READ MAPS OR SIGNS. MR DURSLEY GAVE HIMSELF A LITTLE SHAKE AND PUT THE CAT OUT OF HIS MIND AS HE DROVE TOWARD TOWN. HE THOUGHT OF NOTHING EXCEPT A LARGE ORDER OF DRILLS. SHE WAS HOPING TO GET THAT DAY BUT ON THE EDGE OF TOWN DRILLS WERE DRIVEN OUT OF HIS MIND BY SOMETHING ELSE. AS HE SAT IN THE USUAL MORNING TRAFFIC JAM HE COULDN'T HELP NOTICING THAT THERE SEEMED TO BE A LOT OF STRANGELY DRESSED PEOPLE ABOUT PEOPLE IN CLOAKS. MR DURSLEY COULDN'T BEAR PEOPLE WHO DRESSED IN FUNNY CLOTHES. HE GET UP. YOU SAW A YOUNG PEOPLE HE SUPPOSED THIS WAS SOME STUPID NEW FASHION. HE DRUMMED HIS FINGERS ON THE STEERING WHEEL AND HIS EYES FELL ON A HUDDLE OF THESE WEIRDOS STANDING QUITE CLOSE

BYTHEYWEREWHISPERSINGEXCITEDLYTOGETHERMRDURSLEYWASENRAGEDTOSEETHATACOUPL
LEOFTHEMWERENTYOUNGATALLWHYTHATMANHADTOBEOLDERTHANHEWASANDWEARINGANEME
RALDGREENCLOAKTHENERVEOFHIMBUTTHENITSTRUCKMRDURSLEYTHATTHISWASPROBABLY
SOMESILLYSTUNTTHESEPEOPLEWEREOBVIOUSLYCOLLECTINGFORSOMETHINGYESTHATWOU
LDBEITTHETRAFFICMOVEDONANDAFEWMINUTESLATERMRDURSLEYARRIVEDINTHEGRUNNIN
GSCARPARKHISMINDBACKONDRILLSMRDURSLEYALWAYS SAT WITH HIS BACK TO THE WINDOW IN
HIS OFFICE ON THEN IN THE FLOOR IF HE HADN'T HE MIGHT HAVE FOUND IT HARDER TO CONCENTRATE
ON DRILLS THAT MORNING HE DIDN'T SEE THE OWLS SWOOPING PAST IN BROAD DAYLIGHT THOUGH P
EOPLE DOWN IN THE STREET DID THEY POINTED AND GAZED OPEN MOUTHED AS OWLS AFTER OWLS PED
OVERHEAD MOST OF THEM HAD NEVER SEEN AN OWL EVEN AT NIGHT T T I M E MRDURSLEY HOWEVER HADA
PERFECTLY NORMAL OWL FREE MORNING HE YELLED AT FIVE DIFFERENT PEOPLE HE MADE SEVERA
L IMPORTANT TELEPHONE CALLS AND SHOUTED A BIT MORE HE WAS IN A VERY GOOD MOOD UNTIL LUN
CH TIME WHEN HE THOUGHT HE'D STRETCH HIS LEGS AND WALK ACROSS THE ROAD TO BUY HIMSELF A B
UN FROM THE BAKERS OPPOSITE HE'D FORGOTTEN ALL ABOUT THE PEOPLE IN CLOAKS UNTIL HE PAS
SED A GROUP OF THEM NEXT TO THE BAKERS SHE EYED THEM ANGRILY AS HE PASSED HE DIDN'T KNOW WH
Y BUT THEY MADE HIM UNEASY THIS LOT WERE WHISPERSING EXCITEDLY TOO AND HE COULDN'T SEE A
SINGLE COLLECTING TIN IT WAS ON HIS SWAY BACK PAST THEM CLUTCHING A LARGE DOUGHNUT IN A
BAG THAT HE CAUGHT A FEW WORDS OF WHAT THEY WERE SAYING THE POTTERS THAT'S RIGHT THAT'S W
HAT I HEARD YESTHEIR SON HARRY MRDURSLEY STOPPED DEAD FEAR FLOODED HIM HE LOOKED BACK
KAT THE WHISPERS AS IF HE WANTED TO SAY SOMETHING TO THEM BUT THOUGHT BETTER OF IT THE
DASHED BACK ACROSS THE ROAD HURRIED UP TO HIS OFFICE SNAPPED AT HIS SECRETARY NOT TO D
ISTURB HIM SEIZED HIS TELEPHONE AND HAD ALMOST FINISHED DIALLING HIS HOME NUMBER WH
EN HE CHANGED HIS MIND HE PUT THERE CEIVER BACK DOWN AND STROKED HIS MOUSTACHE THINKI
NG NO HE WAS BEING STUPID POTTER WASN'T SUCH AN UNUSUAL NAME HE WAS SURE THERE WERE LOTS
OF PEOPLE CALLED POTTER WHO HAD A SON CALLED HARRY COME TO THINK OF IT HE WASN'T EVEN SUR
E HIS NEPHEW WAS CALLED HARRY HE'D NEVER EVEN SEEN THE BOY IT MIGHT HAVE BEEN HARVEY OR H
AROLD THERE WAS NO POINT IN WORRYING MRS DURSLEY SHE ALWAYS GOT SO UPSET AT ANY MENTION
OF HERSISTER HE DIDN'T BLAME HER IF HE'D HAD A SISTER LIKE THAT BUT ALL THE SAME THOSE PE
OPLE IN CLOAKS HE FOUND IT A LOT HARDER TO CONCENTRATE ON DRILLS THAT AFTERNOON AND WH
EN HE LEFT THE BUILDING AT FIVE O'CLOCK HE WAS STILL SO WORRIED THAT HE WALKED STRAIGHT
INTO SOMEONE JUST OUTSIDE THE DOORS SORRY HE GRUNTED AS THE TINY OLD MAN STUMBLED AND A
L MOST FELL IT WAS A FEW SECONDS BEFORE MRDURSLEY REALISED THAT THE MAN WAS WEARING A V
IOLET CLOAK HE DIDN'T SEEM AT ALL UPSET AT BEING ALMOST KNOCKED TO THE GROUND ON THE CON
TRARY HIS FACE SPLIT INTO A WIDE SMILE AND HE SAID IN A SQUEAKY VOICE THAT MADE PASSERS
BY STARE DON'T BE SORRY MY DEARS I'VE FOR NOTHING COULD UPSET ME TODAY REJOICE FOR YOU KNO
W WHO HAS GONE AT LAST EVEN MUGGLES LIKE YOURSELF SHOULD BE CELEBRATING THIS HAPPY HA
PPY DAY AND THE OLD MAN HUGGED MRDURSLEY AROUND THE MIDDLE AND WALKED OFF MRDURSLEYS
TOO ROOTED TO THE SPOT HE HAD BEEN HUGGED BY A COMPLETE STRANGER HE ALSO THOUGHT HE HA
D BEEN CALLED A MUGGLE WHATEVER THAT WAS HE WAS RATTLED HE HURRIED TO HIS CAR AND SET OF
F HOME HOPING HE WAS IMAGINING THINGS WHICH HE HAD NEVER HOPED BEFORE BECAUSE HE DIDN
T APPROVE OF IMAGINATION AS HE PULLED INTO THE DRIVEWAY OF NUMBER FOUR THE FIRST THIN
G HE SAW AND IT DIDN'T IMPROVE HIS MOOD WAS THE TABBY CAT HE'D SPOTTED THAT MORNING IT WAS
NOW SITTING ON HIS GARDEN WALL HE WAS SURE IT WAS THE SAME ONE IT HAD THE SAME MARKINGS A
ROUND IT SEYESSHOOSAID MRDURSLEY LOUDLY THE CAT DIDN'T MOVE IT JUST GAVE HIM A STERN L
OOK WAS THIS NORMAL CAT BEHAVIOUR MRDURSLEY WONDERED TRYING TO PULL HIMSELF TOGETH

ERHELETHIMSELFINTOTHEHOUSEHEWASSTILLDETERMINEDNOTTOMENTIONANYTHINGTOHISWIFE MRS DURSLEY HAD HAD ANI CENORMAL DAYS SHE TOLD HIM OVER DINNER ALL ABOUT MRS NEXT DOORS PROBLEMS WITH HER DAUGHTER AND HOW DUDLEY HAD LEARNT A NEW WORDS HANT MR DURSLEY TRIED TO ACT NORMALLY WHEN DUDLEY HAD BEEN PUT TO BED HE WENT INTO THE LIVING ROOM INTIME TO CATCH THE LAST REPORT ON THE EVENING NEWS AND FINALLY BIRD WATCHER SEEVERYWHERE HAVE REPORTED THAT THE NATIONS OWLS HAVE BEEN BEHAVING VERY UNUSUALLY TODAY ALTHOUGH OWLS NORMALLY HUNT AT NIGHT AND ARE HARDLY EVER SEEN IN DAY LIGHT THERE HAVE BEEN HUNDREDS OF SIGHTINGS OF THESE BIRDS FLYING IN EVERY DIRECTION SINCE SUNRISE EXPERTS ARE UNABLE TO EXPLAIN WHY THE OWLS HAVE SUDDENLY CHANGED THEIR SLEEPING PATTERNS THE NEWS READER ALLOWED HIMSELF A GRIN MOST MYSTERIOUS AND NOW OVER TO JIM MCGUFFIN WITH THE WEATHER GOING TO BE ANY MORE SHOWERS OF FOWL STONIGHT JIM WELL TESSAID THE WEATHER MAN I DONT KNOW ABOUT THAT BUT ITS NOT ONLY THE OWLS THAT HAVE BEEN ACTING GODDLY TODAY VIEWERS AS FAR APART AS KENTYORKSHIRE AND DUNDEE HAVE BEEN PHONING IN TO TELL ME THAT INSTEAD OF THE RAIN I PROMISED YESTERDAY THEYVE HAD A DOWNPOUR OF SHOOTING STARS PERHAPS PEOPLE HAVE BEEN CELEBRATING BONFIRE NIGHT EARLY ITS NOT UNTIL NEXT WEEK FOLKS BUT I CAN PROMISE A WET NIGHT TONIGHT MR DURSLEY SAT FROZEN IN HIS ARMCHAIR SHOOTING STARS ALL OVER BRITAIN OWLS FLYING BY DAY LIGHT MYSTERIOUS PEOPLE IN CLOAKS ALL OVER THE PLACE AND AWHISPER AWHISPER ABOUT THE POTTERS MRS DURSLEY CAME INTO THE LIVING ROOM CARRYING TWO CUPS OF TEA IT WAS NO GOOD HED HAD TO SAY SOMETHING TO HER HE CLEARED HIS THROAT NERVOUSLY ERPETUNI ADEARYOU HAVEN'T HEARD FROM YOURSISTER LATELY HAVE YOU AS HE HAD EXPECTED MRS DURSLEY LOOKED SHOCKED AND ANGRY AFTER ALL THEY NORMALLY PRETENDED SHE DIDNT HAVE A SISTER NOSHE SAID SHARPLY WHY FUNNY STUFF ON THE NEWS MR DURSLEY MUMBLED OWLS SHOOTING STARS AND THERE WERE A LOT OF FUNNY LOOKING PEOPLE IN TOWN TODAY SO SNAPPED MRS DURSLEY WELL I JUST THOUGHT MAYBE IT WAS SOMETHING TO DO WITH YOU KNOW WHERE LOT MRS DURSLEY SIPPED HER TEA THROUGH PURSED LIPS MR DURSLEY WONDERED WHETHER HE DARED TELL HER HE HAD HEARD THE NAME POTTER HE DECIDED HE DIDNT DARE INSTEAD HE SAID AS CASUALLY AS HE COULD THE IRSON HE D BE ABOUT DUDLEYS AGENOW WOULDNT HEI SUPPOSE SO SAID MRS DURSLEY STIFFLY WHATS HIS NAME AGAIN HOWARD ISNT IT HARRY NASTY COMMON NAME IF YOU ASK ME OH YESSAID MR DURSLEY HIS HEARTS INKING HORRIBLY YES I QUITE AGREE HE DIDNT SAY ANOTHER WORD ON THE SUBJECT AS THEY WENT UP STAIRS TO BED WHILE MRS DURSLEY WAS IN THE BATHROOM MR DURSLEY CREPT TO THE BEDROOM WINDOW AND PEERED DOWN INTO THE FRONT GARDEN THE CAT WAS STILL THERE IT WAS STARING DOWN PRIVET DRIVE AS THOUGH IT WAS WAITING FOR SOMETHING WAS HE IMAGINING THINGS COULD ALL THIS HAVE ANYTHING TO DO WITH THE POTTERS IF IT DID IF IT GOT OUT THAT THEY WERE RELATED TO A PAIR OF WELLS HE DIDNT THINK HE COULD BEAR IT THE DURSLEYS GOT INTO BED MRS DURSLEY FELL ASLEEP QUICKLY BUT MR DURSLEY LAY AWAKE TURNING IT ALL OVER IN HIS MIND HIS LAST COMFORTING THOUGHT BEFORE HE FELL ASLEEP WAS THAT EVEN IF THE POTTERS WERE INVOLVED THERE WAS NO REASON FOR THEM TO COME NEAR HIM AND MRS DURSLEY THE POTTERS SKNEW VERY WELL WHAT HE AND PETUNI A THOUGHT ABOUT THEM AND THE IRKIND HE COULDNT SEE HOW HE AND PETUNI A COULD GET MIXED UP IN ANYTHING THAT MIGHT BE GOING ON HE YAWNED AND TURNED OVER IT COULDNT AFFECT THEM HOW VERY WRONG HE WAS MR DURSLEY MIGHT HAVE BEEN DRIFTING INTO AN UNEASY SLEEP BUT THE CAT ON THE WALL OUTSIDE WAS SHOWING NO SIGN OF SLEEPINESS IT WAS SITTING AS STILL AS A STATUE ITS EYES FIXED UNBLINKINGLY ON THE FAR CORNER OF PRIVET DRIVE IT DIDNT SOMUCH AS QUIVER WHEN A CAR DOOR SLAMMED IN THE NEXT STREET NOR WHEN TWO OWLS SWOOPED OVERHEAD IN FACT IT WAS NEARLY MIDNIGHT BEFORE THE CAT MOVED AT ALL MANA PPEARED ON THE CORNER THE CAT HAD BEEN WATCHING

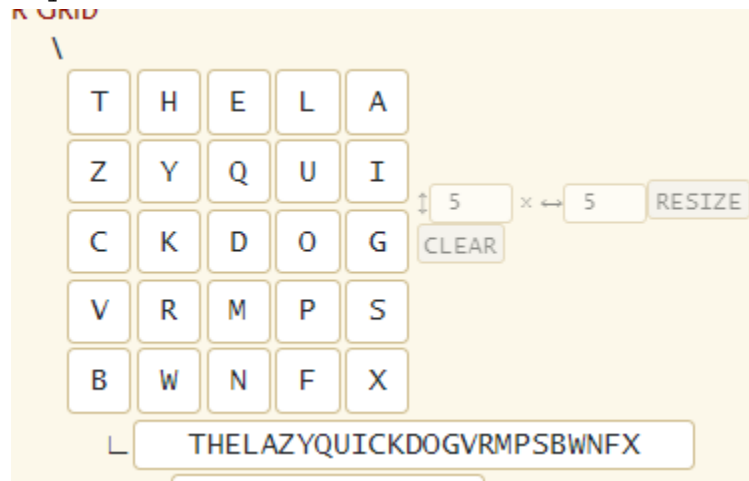
NGAPPEAREDSOSUDDENLYANDSILENTLYYOUHAVETHOUGHTHEJUSTPOPPEDOUTOFTHEGRO
UNDTHECATSTAILTWITCHEDANDITSEYESNARROWEDNOTHINGLIKETHISMANHADEVERBEENS
EENINPRIVETDRIVEHEWASTALLTHINANDVERYOLDJUDGINGBYTHESILVEROFHISHAIRANDB
EARDWHICHWEREBOTHLONGENOUGHTOTUCKINTOHISELTHEWASWEARINGLONGROBESAPURP
LECLOAKWHICHSWEPTTHEGROUNDANDHIGHHEELEDUCKLEDBOOTSHISBLUEEYESWERELIGH
TBRIGHTANDSPARKLINGBEHINDHALFMOONSPECTACLESANDHISNOSEWASVERYLONGANDCRO
OKEDASTHOUGHITHADBEENBROKENATLEASTTWICETHISMAN'SNAMEWASALBUSDUMBLEDOREA
LBUSDUMBLEDOREDIDNTSEEMTOREALISETHATHEHADJUSTARRIVEDINASTREETWHEREEVER
YTHINGFROMHISNAMETOHISBOOTSWASUNWELCOMEHEWASBUSYRUMMAGINGINHISCLOAKLOO
KINGFORSOMETHINGBUTHEIDSEEMTOREALISEHEWASBEINGWATCHEDBECAUSEHELOOKEDU
PSUDDENLYATTHECATWHICHWASSTILLSTARINGATHIMFROMTHEOTHERENDOFTHESTREETFO
RSOMEREASONTHESIGHTOFTHECATSEEMEDTOAMUSEHIMHECHUCKLEDANDMUTTEREDISHOUL
DHAVEKNOWNHEHADFOUNDWHATHEWASLOOKINGFORINHISINSIDEPOCKETITSEEMEDTOBEAS
ILVERCIGARETTELIGHTERHEFLICKEDITOPENHELDITUPINTHEAIRANDCLICKEDITTHENEA
RESTSTREETLAMPWENTOUTWITHALITTLEPOPHECLICKEDITAGAINTHENEXTLAMPFLICKERE
DINTODARKNESSTWELVETIMESHECLICKEDTHEPUTOUTERUNTILTHEONLYLIGHTSLEFTINTH
EWHOLESTREETWERETWOTINYPINPRICKSINTHEDISTANCEWHICHWERETHEEYESOFTHECATW
ATCHINGHIMIFANYONELOOKEDOUTOFTHEIRWINDOWNOWEVENBEADYEYEDMRSDURSLEYTHEY
WOULDN'TBEABLETOSEEANYTHINGTHATWASHAPPENINGDOWNONTHEPAVEMENTDUMBLEDORES
LIPPEDTHEPUTOUTERBACKINSIDEHISCLOAKANDSETOFFDOWNTHESTREETTOWARDSNUMBER
FOURWHEREHESATDOWNONTHEWALLNEXTTOTHECATHEDIDNTLOOKATITBUTAFTERAMOMENTH
ESPOKETOITFANCYSEEINGYOUHEREPROFESSORMCGONAGALLHETURNEDTOSMILEATTHETAB
BYBUTITHADGONEINSTEADHEWASSMILINGATARATHERSEVERELOOKINGWOMANWHOWASWEAR
INGSQUAREGLASSESEXACTLYTHESHAPEOFTHEMARKINGSTHECATHADHADAROUNDITSEYESS
HETOOWASWEARINGACLOAKANEMERALDONEHERBLACKHAIRWASDRAWNINTOATIGHTBUNSHEL
OOKEDDISTINCTLYRUFFLEDHOWDIDYOUKNOWITWASMESHEASKEDMYDEARPROFESSORIVENE
VERSEENACATSITSOSTIFFLYYOUDBESTIFFIFYOUBEENSITTINGONABRICKWALLALLDAYS
AIDPROFESSORMCGONAGALLALLDAYWHENYOUCOULDHAVEBEENCELEBRATINGIMUSTHAVEPA
SSEDADOZENFEASTSANDPARTIESONMYWAYHEREPROFESSORMCGONAGALLSNIFFEDANGRILY
OHYESEVERYONESCELEBRATINGALLRIGHTSHESAIDIMPATIENTLYYOU'DTHINKTHEY'DBEABI
TMORECAREFULBUTNOEVENTHEMUGGLESHAVENOTICEDSOMETHINGSGOINGONITWASONTHEI
RNEWSHEJERKEDHERHEADBACKATTHEDURSLEYS'DARKLIVINGROOMWINDOWIHEARDITFLOC
KSOFWLSSHOOTINGSTARSWELLTHEYRENOTCOMPLETELYSTUPIDTHEYWEREBOUNDNOTIC
ESOMETHINGSHOOTINGSTARSDOWNINKENTILLBETTHATWASDEDALUSDIGGLEHENEVERHADM
UCHSENSEYOU CANTBLAMETHEMSAIDDUMBLEDOREGENTLYWEVEHADPRECIOUSLITTLETOCEL
EBRATEFORELEVENYEARSIKNOWTHATSAIDPROFESSORMCGONAGALLIRRITABLYBUTTHATSN
OREASONTOLOSEOURHEADSPEOPLEAREBEINGDOWNRIGHTCARELESSOUTONTHESTREETSINB
ROADDAYLIGHTNOTEVENDRESSEDINMUGGLECLOTHESWAPPINGRUMOURSSHETHREWASHARP
SIDEWAYSGLANCEATDUMBLEDOREHEREASTHOUGHHOPINGHEWASGOINGTOTELLHERSOMETHI
NGBUTHEIDNTSOSHEWENTONAFINETHINGITWOULDBEIFONTHEVERYDAYYOUKNOWWHOSEEM
STOHAVEDISAPPEAREDATLASTTHEMUGGLESFOUNDOUTABOUTUSALLISUPPOSEHEREALLYHA
SGONEDUMBLEDOREITCERTAINLYSEEMSSOSAIDDUMBLEDOREWEHAVEMUCHTOBETHANKFULF
ORWOULDYOU CAREFORASHERBETLEMONAWHATASHERBETLEMONTHEYREAKINDOFMUGGLESWE
ETIMRATHERFOND OFNOTHANKYOU SAIDPROFESSORMCGONAGALLCOLDLYASTHOUGHSHEDIDN
TTHINKTHISWASTHEMOMENTFORSHERBETLEMONSASISAYEVENIFYOUCANWHOHASGONEMYD

EAR PROFESSORS SURELY A SENSIBLE PERSON LIKE YOURSELF CAN CALL HIM BY HIS NAME ALL THINGS YOU KNOW WHO NONSENSE FOR EVEN YEARS I HAVE BEEN TRYING TO PERSUADE PEOPLE TO CALL HIM BY HIS PROPER NAME VOLDEMORT PROFESSOR MCGONAGALL FLINCHED BUT DUMBLEDORE WHO WAS UNSTICKING TWO HERBETLEMONS SEEMED NOT TO NOTICE IT ALL GETS SO CONFUSING IF WE KEEP SAYING YOU KNOW WHO I HAVE NEVER SEEN ANY REASON TO BE FRIGHTENED OF SAYING VOLDEMORTS NAME I KNOW YOU HAVEN'T SAID PROFESSOR MCGONAGALL SOUNDING HALF EXASPERATED HALF ADMIRING BUT YOU'RE DIFFERENT EVERYONE KNOWS YOU'RE THE ONLY ONE YOU KNOW WHO ALL RIGHT VOLDEMORT WAS FRIGHTENED OF YOU FLATTER ME SAID DUMBLEDORE CALMLY VOLDEMORT HAS POWER SI WILL NEVER HAVE ONLY BECAUSE YOU'RE TOO WELL NOBLE TO USE THEM IT'S LUCKY IT'S DARK I HAVEN'T BLUSHED SO MUCH SINCE MADAM POMFREY TOLD ME SHE LIKED MY NEW EARMUFFS PROFESSOR MCGONAGALL SHOT A SHARP LOOK AT DUMBLEDORE AND SAID THE OWLS ARE NOTHING TO THEM RUMOURS THAT ARE FLYING AROUND YOU KNOW WHAT EVERYONE'S SAYING ABOUT WHY HE'S DISAPPEARED ABOUT WHAT FINALLY STOPPED HIM IT SEEMED THAT PROFESSOR MCGONAGALL HAD REACHED THE POINT SHE WAS MOST ANXIOUS TO DISCUSS THE REAL REASONS SHE HAD BEEN WAITING ON AN OLD HARD WALL ALL DAY FOR NEITHER A SAC AT NOR A WOMAN HAD SHE FIXED DUMBLEDORE WITH SUCH A PIERCING STARE AS SHE DID NOW IT WAS PLAIN THAT WHATEVER EVERYONE WAS SAYING SHE WAS NOT GOING TO BELIEVE IT UNTIL DUMBLEDORE TOLD HER IT WAS TRUE DUMBLEDORE HOWEVER WAS CHOOSING ANOTHER SHERBETLEMON AND DID NOT ANSWER WHAT THEY'RE SAYING SHE PRESSES DON'T THAT LAST NIGHT VOLDEMORT TURNED UP IN GODRIC'S HOLLOW HE WENT TO FIND THE POTTERS THE RUMOUR IS THAT LILY AND JAMES POTTER ARE THAT THEY'RE DEAD DUMBLEDORE BOWED HIS HEAD PROFESSOR MCGONAGALL GASPED LILY AND JAMES I CAN'T BELIEVE IT I DIDN'T WANT TO BELIEVE IT OH ALBUS DUMBLEDORE REACHED OUT AND PATTED HER ON THE SHOULDER I KNOW KNOW WHEN SHE SAID HEAVILY PROFESSOR MCGONAGALLS VOICE TREMBLED AS SHE WENT ON THAT'S NOT ALL THEY'RE SAYING HE TRIED TO KILL THE POTTERS SON HARRY BUT HE COULDN'T HE COULDN'T KILL THAT LITTLE BOY NO ONE KNOWS WHY OR HOW BUT THEY'RE SAYING THAT WHEN HE COULDN'T KILL HARRY POTTER VOLDEMORTS POWERS SOMEHOW BROKE AND THAT'S WHY HE'S GONE DUMBLEDORE NODDED GLUMLY IT'S IT'S TRUE FALTERED PROFESSOR MCGONAGALL AFTER ALL HE'S DONE ALL THE PEOPLE HE SKILLED HE COULDN'T KILL A LITTLE BOY IT'S JUST A STOUNDING OF ALL THE THINGS TO STOP HIM BUILT HOW IN THE NAME OF HEAVEN DID HARRY SURVIVE WE CAN ONLY GUESS SAID DUMBLEDORE WE MAY NEVER KNOW PROFESSOR MCGONAGALL PULLED OUT A LACE HANDKERCHIEF AND DABBED AT HER EYE SBENEATH HER SPECTACLES DUMBLEDORE GAVE A GREAT SNIFF AS HE TOOK A GOLDEN WATCH FROM HIS POCKET AND EXAMINED IT IT WAS A VERY ODD WATCH WITH TWELVE HANDS BUT NO NUMBERS INSTEAD LITTLE PLANETS WERE MOVING AROUND THE EDGE IT MUST HAVE MADE SENSE TO DUMBLEDORE THOUGH BECAUSE HE PUT IT BACK IN HIS POCKET AND SAID HA GRIDSLATE I SUPPOSE IT WAS HE WHO TOLD YOU I'D BE HERE BY THE WAY YESSAID PROFESSOR MCGONAGALL AND I DON'T SUPPOSE YOU'RE GOING TO TELL ME WHY YOU'RE HERE OF ALL PLACES I'VE COME TO BRING HARRY TO HIS SAUNT AND UNCLE THEY'RE THE ONLY FAMILY HE HAS LEFT NOW YOU DON'T MEAN YOU CAN'T MEAN THE PEOPLE WHO LIVE HERE CRIED PROFESSOR MCGONAGALL JUMPING TO HER FEET AND POINTING AT NUMBER FOUR DUMBLEDORE YOU CAN'T HAVE BEEN WATCHING THEM ALL DAY YOU COULDN'T FIND TWO PEOPLE WHO AREN'T LIKE US AND THEY'VE GOT THIS SON I SAW HIM KICKING HIS MOTHER ALL THE WAY UP THE STREETS SCREAMING FOR SWEET HARRY POTTER COME AND LIVE HERE IT'S THE BEST PLACE FOR HIM SAID DUMBLEDORE FIRMLY HIS SAUNT AND UNCLE WILL BE ABLE TO EXPLAIN EVERYTHING TO HIM WHEN HE'S SOLDER I'VE WRITTEN THE MALETTER A LETTER REPEATED PROFESSOR MCGONAGALL FAINTLY SITTING BACK DOWN ON THE WALL REALLY DUMBLEDORE YOU THINK YOU CAN EXPLAIN ALL THIS IN A LETTER THESE PEOPLE WILL NEVER UNDERSTAND HIM HE'LL BE FAMOUS A LEGEND I WOULDNT BE

SURPRISED IF TODAY WAS KNOWN AS HARRY POTTER DAY IN FUTURE THERE WILL BE BOOKS WRITTEN ABOUT HARRY EVERY CHILD IN OUR WORLD WILL KNOW HIS NAME EXACTLY SAID DUMBLEDORE LOOKING VERY SERIOUSLY OVER THE TOP OF HIS HALF MOON GLASSES IT WOULD BE ENOUGH TO TURN ANY BOY'S HEAD FAMOUS BEFORE HE CAN WALK AND TALK FAMOUS FOR SOMETHING HE WON'T EVEN REMEMBER CAN YOU SEE HOW MUCH BETTER OFF HE'LL BE GROWING UP AWAY FROM ALL THAT UNTIL HE'S READY TO TAKE IT PROFESSOR MCGONAGALL OPENED HER MOUTH CHANGED HER MIND SWALLOWED AND THEN SAID YES YES YOUR RIGHT OF COURSE BUT HOW IS THE BOY GETTING HERE DUMBLEDORE SHEEYED HIS CLOAKS SUDDENLY AS THOUGH SHE THOUGHT HE MIGHT BE HIDING HARRY UNDERNEATH WITH A GRID BRINGING HIM YOUTHINK IT WISE TO TRUST HAGRID WITH SOMETHING AS IMPORTANT AS THIS I WOULD TRUST HAGRID WITH MY LIFE SAID DUMBLEDORE I'M NOT SAYING HIS HEART ISN'T IN THE RIGHT PLACE SAID PROFESSOR MCGONAGALL GRUDGINGLY BUT YOU CAN'T PRETEND HE'S NOT CARELESS HE DOESN'T KNOW WHAT WAS THAT A LOW RUMBLING SOUND HAD BROKEN THE SILENCE AROUND THEM IT GREW STEADILY LOUDER AS THEY LOOKED UP AND DOWN THE STREET FOR SOME SIGN OF A HEADLIGHT IT SWELLED TO A ROAR AS THEY BOTH LOOKED UP AT THE SKY AND A HUGE MOTORBIKE FELLOUT OF THE AIR AND LANDED ON THE ROAD IN FRONT OF THEM IF THE MOTORBIKE WAS HUGE IT WAS NOTHING TO THEM ANS ITTING AS TRIDE IT WAS ALMOST TWICE AS TALL AS A NORMAL MAN AND AT LEAST FIVE TIMES AS WIDE HE LOOKED SIMPLY TOO BIG TO BE ALLOWED AND SO WILD LONG TANGLE OF BUSHY BLACK HAIR AND BEARD HID MOST OF HIS FACE HE HAD HANDS THE SIZE OF DUST BIN LIDS AND HIS FEET IN THE IR LEATHER BOOTS WERE LIKE BABY DOLPHINS IN HIS VAST MUSCULAR ARM SHE WAS HOLDING A BUNDLE OF BLANKETS HAGRID SAID DUMBLEDORE SOUNDING RELIEVED AT LAST WHERE DID YOU GET THAT MOTORBIKE BORROWED IT PROFESSOR DUMBLEDORE SAID THE GIANT CLIMBING CAREFULLY OFF THE MOTORBIKE AS HE SPOKE YOUNG SIRIUS BLACK LENT HIM FIVE GO THINGS IR NO PROBLEMS WERE THERE NO SIR HOUSE WAS ALMOST DESTROYED BUT I GOT HIM OUT ALL RIGHT BEFORE THE MUGGLES STARTED SWARMING AROUND HE FELL ASLEEP AS HE WAS FLYING NOVER BRISTOLD DUMBLEDORE AND PROFESSOR MCGONAGALL BENT FORWARD OVER THE BUNDLE OF BLANKETS INSIDE JUST VISIBLE WAS A BABY BOY FAST ASLEEP UNDER A TUFT OF JET BLACK HAIR OVER HIS FOREHEAD THEY COULD SEE A CURIOUSLY SHAPED CUT LIKE A BOLT OF LIGHTNING IS THAT WHERE HIS SPERD PROFESSOR MCGONAGALL YES SAID DUMBLEDORE HE'LL HAVE THAT SCAR FOR EVER COULDN'T YOU DO SOMETHING ABOUT IT DUMBLEDORE EVEN IF I COULDN'T SCAR CAN COME IN USEFUL I HAVE ONE MYSELF ABOVE MY LEFT KNEE WHICH IS A PERFECT MAP OF THE LONDON UNDERGROUND WELL GIVE HIM HERE HAGRID WED BETTER GET THIS OVER WITH DUMBLEDORE TOO KHARRY IN HIS ARMS AND TURNED TOWARDSTHE DURSLEY HOUSE COULD I COULD I SAY GOODBYE TO HIM SIR ASKED HAGRID HE BENT HIS GREAT SHAGGY HEAD OVER HARRY AND GAVE HIM WHAT MUST HAVE BEEN A VERY SCRATCHY WHISKERY KISS THEN SUDDENLY HAGRID LET OUT A HOWL LIKE A WOUNDED DOG SHHHH HISSED PROFESSOR MCGONAGALL YOU'LL WAKE THE MUGGLES SSSORRY SOBBED HAGRID TAKING OUT A LARGE SPOTTED HANDKERCHIEF AND BURYING HIS FACE IN IT BUT I CAN'T STAND IT LILYAN JAMES DEAD AN POOR LITTLE HARRY OFFER TO LIVE WITH MUGGLES YES YES IT'S ALL VERY SAD BUT GET A GRIP ON YOURSELF HAGRID OR WELL BE FOUND PROFESSOR MCGONAGALL WHO'S SPERD PATTING HAGRID GINGERLY ON THE ARM AS DUMBLEDORE STEPPED OVER THE LOW GARDEN WALL AND WALKED TO THE FRONT DOOR HE LAID HARRY GENTLY ON THE DOORSTEP TOOK A LETTER OUT OF HIS CLOAK TUCKED IT INSIDE HARRY'S BLANKETS AND THEN CAME BACK TO THE OTHER TWO FOR A FULL MINUTE THE THREE OF THEM STOOD AND LOOKED AT THE LITTLE BUNDLE HAGRID'S SHOULDER SHE HOOK PROFESSOR MCGONAGALL BLINKED FURIOUSLY AND THEN TWINKLING LIGHT THAT USUALLY SHONE FROM DUMBLEDORE'S EYES SEEMED TO HAVE GONE OUT WELL SAID DUMBLEDORE FINALLY THAT'S THAT WE EVEN BUSINESS STAYING HERE WE MAY AS WELL GO AND JOIN THE CELEBRATIONS

EAHSAIDHAGRIDINAVERYMUFFLEDVOICEIDBESTGETTHISBIKEAWAYGNIGHTPROFESSORMC
 GONAGALLPROFESSORDUMBLEDORESIRWIPINGHISSTREAMINGEYESONHISJACKETSLEEVEH
 AGRIDSWUNGHIMSELFONTOTHEMOTORBIKEANDKICKEDTHEENGINEINTOLIFEWITHAROARIT
 ROSEINTOTHEAIRANDOFFINTOTHENIGHTISHALLSEEYOU SOON I EXPECT PROFESSORMCGONA
 GALLSAIDDUMBLEDORENODDINGTOHERPROFESSORMCGONAGALLBLEWHERNOSEINREPLYDUM
 BLEDORETURNEDANDWALKEDBACKDOWNTHESTREETONTHECORNERHESTOPPEDANDTOOKOUTT
 HESILVERPUTOUTERHECLICKEDITONCEANDTWELVEBALLSOFLIGHTSPEDBACKTOTHEIRSTR
 EETLAMPSSOTHATPRIVETDRIVEGLOWEDSUDDENLYORANGEANDHECOULDMAKEOUTATABBYCA
 TSLINKINGAROUNDTHECORNERATTHEOTHERENDOFSTREETHECOULDJUSTSEETHEBUNDL
 EOFBLANKETSONTHESTEPNUMBERFOURGOODLUCKHARRYHEMURMUREDHETURNEDONHISHE
 ELANDWITHASWISHOFHISCLOAKHEWASGONEABREEZERUFFLEDTHENEATHEDGESOFPRIVETD
 RIVEWHICHLAYSILENTANDTIDYUNDERTHEINKYSKYTHEVERYLASTPLACEYOUWOULDEXPECT
 ASTONISHINGTHINGSTOHAPPENHARRYPOTTERROLLEDOVERINSIDEHISBLANKETSWITHOUT
 WAKINGUPONESMALLHANDCLOSEDONTHELETTERBESIDEHIMANDHESLEPTONNOTKNOWINGHE
 WASPECIALNOTKNOWINGHEWASFAMOUSNOTKNOWINGHEWOULDBEWOKENINAFEWHOURSTIME
 BYMRSDURSLEYS SCREAMAS SHE OPENED THE FRONT DOOR TO PUT OUT THE MILK BOTTLES NOT HA
 THEWOULDSPENDTHENEXTFEWWEEKSBEINGPRODDEDANDPINCHEDBYHISCOUSINDUDLEYHEC
 OULDNTKNOWTHATATTHISVERYMOMENTPEOPLEMEETINGINSECRETALLOVERTHECOUNTRYWE
 REHOLDINGUPTHEIRGLASSESANDSAYINGINHUSHEDVOICES TO HARRY POTTER THE BOY WHO LI
 VED

Key: THELAZYQUICKDOGVRMPSBWNFX



4. Hill Cipher

Plain teks:

HELLOAIHAIBARATHEUKRAINEBORNWINNEROFTHEMISSJAPANPAGEANTHASRE
 LINQUISHEDHERCROWNAFTERAREPORTEMERGEDOFANAFFAIRSHEHADWITHAM
 ARRIEDDOCTORKAROLINASHIINOSNOMINATIONINJANUARYFIRSTSPARKEDDEB
 ATEAFTERSOMERIGHTWINGERSQUESTIONEDTHETITLEBEINGAWARDEDTOANAT
 URALISEDJAPANESECITIZENASCANDALTHENERUPTEDOVERHERPRIVATELIFEW
 HENWEEKLYMAGAZINESHUKANBUNSHUNREPORTEDONHEREXTRAMARITALREL

ATIONSHIPTABOOFORBEAUTYPAGEANTCONTESTANTSWHOAREHELDTOSQUEAK
YCLEANMORALSTANDARDSJAPANESEENTERTAINMENTPERSONALITIESWHOHA
VEAFFAIRSDABBLEINDRUGSORSUFFEROTHERSCANDALSALSOOFTENFINDTHEM
SELVESSHUNNEDBYTHEIRFANSANDEMPLOYERSTHEMISSJAPANASSOCIATIONS
IDMONDAYTHATITHADACCEPTEDAREQUESTFROMSHIINOTORETURNTHECROWN
FORPERSONALREASONSADDINGTHEREWOULDBENOMISSJAPANFOCONAN

HELLOAIHAIBA...NAN		
14	2	20
24	16	19
13	4	5
BCDEFGHIJKLMNOPORSTUVWX		

5. (Bonus) Affine Cipher

Solver Key:

```
def find_m(a, c, d):
    c_inv = pow(c, -1, d)

    # Cari nilai b
    b = (a * c_inv) % d
    return b

def find_b(a, c):
    b = a % c
    return b

a = 16 - 95
c = 255 - 70
d = 256

m = find_m(a, c, d)
print("Nilai m:", m)

b = find_b(95 - m * 70, 256)
print("Nilai b:", b)

"""
Diambil sampel
P1 = 70
P2 = 255
C1 = 95
C2 = 16
```

```
16 = m * 255 + b mod 256
95 = m * 70 + b mod 256
16 - 95 = m * 185 mod 256
```

Dengan invers modulus, didapatkan $m = 185$
 $95 - 185 * 70 = b \text{ mod } 256$

Didapatkan $b = 201$
"""

Solver Image

```
import math
import random

def affine_cipher(hex_values, m, b, n):
    plain_hex = []
    m_inv = pow(m, -1, n)
    for i in range(len(hex_values)):
        D = hex((m_inv * (int(hex_values[i], 16) - b)) % n)
        plain_hex.append(D)
    return plain_hex

def read_image_to_bytes(image_path):
    try:
        with open(image_path, "rb") as image:
            f = image.read()
            b = bytearray(f)
            array_of_hex = [hex(byte) for byte in b]
            return array_of_hex
    except FileNotFoundError:
        print("Error: File not found.")
        return None, None, None
    except ValueError as e:
        print("Error:", e)
        return None, None, None

def array_of_hex_to_bytearray(array_of_hex):
    bytearray_data = bytearray()
    for hex_value in array_of_hex:
        if hex_value.startswith('0x'):
            hex_value = hex_value[2:]
        byte_value = int(hex_value, 16)
        bytearray_data.append(byte_value)
    return bytearray_data

def create_file_from_bytes(file_path, bytes_data):
    try:
```

```
        with open(file_path, "wb") as file:
            file.write(bytes_data)
        print("File berhasil dibuat:", file_path)
    except Exception as e:
        print("Error:", e)

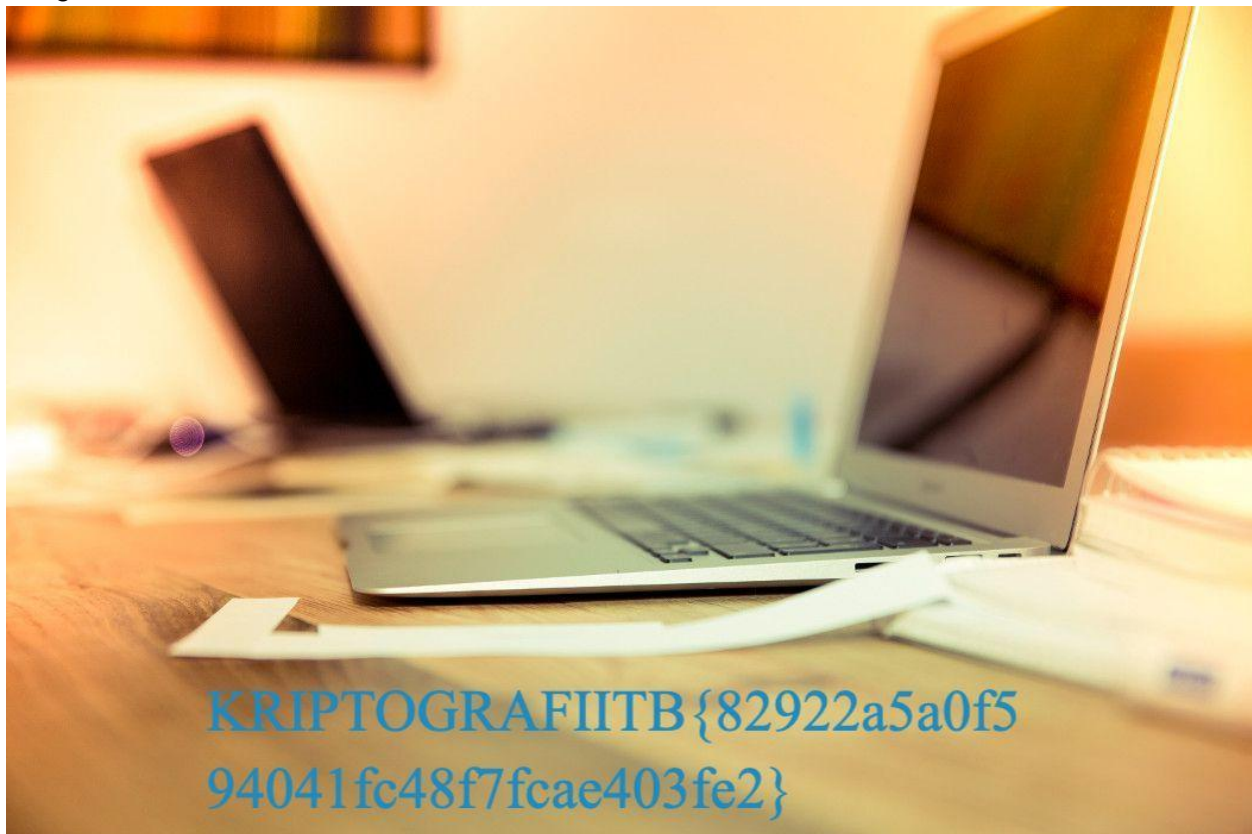
def main():
    image_path = "./chall.jpg"
    n = 256
    m = 185
    b = 201

    hex_values = read_image_to_bytes(image_path)

    if hex_values is not None:
        plain_hex = affine_cipher(hex_values, m, b, n)
        bytearray_cipher = array_of_hex_to_bytearray(plain_hex)
        create_file_from_bytes("./flag.jpg", bytearray_cipher)

if __name__ == "__main__":
    main()
```

Image asli



KRIPTOGRAFIITB {82922a5a0f5
94041fc48f7fcae403fe2}