

## Index

absorption law .....	31-2, Nug24-1
abs .....	6-1, J-1
abstract .....	35-2, 37-1, Nug30-1
access control modifier .....	15-2, Nug-12
accuracy .....	47-2
acos.....	6-2
ADA .....	S-1
add .....	41-1, 42-2, 42-3, 43-2, 45-1, 49-1, Nug30-1, J-3, J-4
addAll.....	41-1, 45-1
addFirst .....	49-1, J-3
addLast .....	49-1, J-3
algebra, boolean .....	31-1
alph order .....	Nug-7
Altair .....	S-3
American Standard Code for Information Interchange ..	D-3
Analytical Engine .....	S-1
ancestors .....	W-1
AND, bitwise .....	27-1, Nug-11
AND, Boolean .....	8-1, 31-1, Nug22-1
anonymous objects .....	16-2
anti-virus software .....	T-1
AP correlation .....	Q-1
append .....	30-1, J-4
appending to the end of a file .....	25-2
Apple IIe .....	S-4
Apple Computer .....	S-4
applyPattern .....	Z-1
area .....	7-2
argument .....	15-3
ArithmaticException .....	36-2, K-1
arithmetic operators .....	H-1
arrayCopy .....	19-2, Nug-10
ArrayIndexOutOfBoundsException .....	18-3, K-1
ArrayList .....	40-15, 41-1, 41-2, 42-1, 43-3, 44-5, 52-2, 52-6, 55-2
ArrayListQueue .....	52-6
arrays .....	18-1, 19-1, 33-1, 42-1, 55-2, Nug- 13, Nug-17, Nug24-1
Arrays class .....	19-3, 34-2, 41-2
arrays of objects .....	19-1
ASCII .....	13-1, D-1, Nug23-1
asin .....	6-2
asList .....	41-2
assembly language .....	V-3
atan .....	6-2
assignment .....	4-1
association list .....	46-1
autoboxing .....	21-1, 42-1, 42-3
Autoexec.bat .....	X-3
auto-unboxing .....	21-2
automatic initialization of arrays .....	18-3

averages .....	24-6, 25-2
AWACS .....	55-1
Babbage, Charles .....	S-1
back of queue .....	52-2
backslash .....	3-2, A-1
backspace .....	A-1
balanced tree .....	51-6
BankAccount class .....	15-7
base .....	14-1, G-1
base class .....	35-2
BaseClass class .....	26-3
base folder .....	I-2, I-3
Bemer, Robert .....	D-3
Big O .....	38-1, 40-13, 42-3, 56-7, Nug-13, Nug27-1 14-1, G-1, Nug-6, Nug-14
binary .....	51-10
binary expression tree .....	25-2, F-1
binary file .....	14-4, U-1
binary file editor .....	19-3, 34-2, 38-3, 40-13, 50-1 -6
binarySearch, Arrays class .....	19-3, 50-6
binary search tree .....	51-1
binary tree .....	44-8, 51-1
bin folder .....	I-2, X-1
bits .....	14-1
bitwise operators .....	27-1, 28-1, Nug-9
block ranges (Unicode characters) .....	AC-2
block remns .....	1-2, AE-2
BlueJ .....	19-4, M-1, N-1, X-1
boolean .....	8-1, 28-2, C-1
boolean algebra .....	31-1
boolean operators .....	H-1, Nug-17
boolean search .....	8-3
booleanValue .....	21-2
boot sector virus .....	T-1
boot sequence .....	T-2
boxing .....	21-1
branch .....	W-1
break .....	10-1, 11-1, 12-2, Nug-8
BreezySwing class .....	M-1
browser .....	V-2
Bubble Sort .....	40-2, 40-13
bug .....	S-3
bunching of indices .....	56-3
byte .....	14-1, C-1
c++ .....	AF-2
Calendar class .....	AD-2
calling chain .....	36-1
call stack .....	49-3
capacity .....	41-2, J-4
cards .....	S-5
casting .....	5-1, 41-2, 42-1, 42-2, Nug-12, Nug23-1
catch .....	36-3, Nug29-1

CD .....	X-2
ceil .....	6-1, Nug27-1, J-2
Central Processing Unit .....	S-4
chain, calling .....	36-1, 49-3
chaining (hashing) .....	56-5
chain (linked list) .....	48-1
change directory (cd) .....	X-2
char .....	10-2, 13-1, C-1, Nug23-1
Character class .....	13-2, Nug22-1
charAt .....	17-3, 30-3, Nug-4, J-1, J-4
charValue .....	21-2
checked exception .....	36-2
child node .....	W-1
class .....	15-1
class creation .....	N-1, O-1
class loader .....	I-3
class method .....	20-2
classpath variable .....	I-3
class variable .....	20-2
clear .....	41-1, 42-2, 42-3, 46-1, 49-1
clone .....	35-4, 56-7
close .....	23-1, 25-1
clusters of data in hash tables .....	56-4
cmd .....	I-2
Collections .....	41-2, 44-5
collisions (hashing) .....	56-5
color palette .....	56-1
command .....	X-3
command line arguments .....	19-4, Nug-16
command line prompt .....	I-1, X-2
comment .....	1-1
Compaq Computer .....	S-4
Comparable .....	40-13, 44-1, 50-4, 51-7
Comparator .....	44-3, 45-2, 46-2
compare .....	44-1
compare objects .....	44-1
compareTo .....	17-1, 44-1, 50-4, 51-7, J-1
compareToIgnoreCase.....	17-1
comparison operators .....	H-1
compatability for matrix multiplication .....	AA-3
compile method .....	AG-1
compiled languages .....	V-3
compiling .....	I-1, V-3, X-1, X-2
complete tree .....	54-1, W-1
complexity analysis .....	38-1
compound operator .....	4-1
computer languages .....	49-3, V-1
concatenation .....	3-1,30-1, 30-2, Nug-7
constant .....	5-1, 20-3, Nug-10
constructor .....	15-1, 15-3, Nug-10
contains .....	17-3, 41-1, 42-3, 45-1, 49-1
containAll .....	41-1
containsKey .....	46-1
containsValue .....	46-1

continue .....	12-2, Nug-8
control expression .....	11-1, 12-1
conversion between number systems .....	14-1, Nug-6
conversion, char to String .....	13-1
conversion, primitives to objects .....	21-1
conversion, numerics to Strings .....	Nug-15
conversion, String to char .....	13-1
conversion, String to double .....	22-1
conversion, String to int .....	22-1
conversion, Wrapper objects to primitives .....	21-2
copyright .....	T-2
copyValueOf .....	19-2, J-1
cos .....	6-2
cosmic superclass .....	16-2, 35-4
CPU .....	S-4
create class .....	N-1, O-1
create project .....	N-1, O-1
CSV files .....	T-2
currentTimeMillis .....	47-2
data member .....	15-1
date/time format .....	AD-1, AD_2
debugging aid .....	X-1
DecimalFormat class .....	26-2, Z-1
declare .....	2-1, 18-1, Nug21-1
decrement .....	4-2, 4-3
decryption project .....	17-6
default .....	10-1
default constructor .....	15-4
default package .....	I-2
defer exception handling .....	36-2
delete .....	30-3, J-4
deleteCharAt .....	30-3
delimiter .....	17-3, Nug-16
Dell Computer .....	S-4
DeMorgan's Theorem .....	31-2
depth of nodes .....	W-1
dequeue .....	52-1, 55-2
derived class .....	35-2
descendents .....	W-1
dictionary .....	46-1
Difference Engine .....	S-1
directory .....	I-3, X-2
disorganized data .....	56-2
distribution of indices (hash table) .....	56-5
divisors of a number .....	47-1
DOS .....	S-4
DOS prompt .....	19-4, I-4, X-1
double .....	2-1, C-1
double quote .....	A-1
doubleValue .....	21-2
doubly linked list .....	49-1
do-while loop .....	12-1
dynamic memory .....	48-5
edge .....	W-1

electronic community .....	35-5, U-1
email .....	T-1
email hoax .....	T-1
encryption project .....	17-6
end method .....	AG-1
endless loop .....	11-1
enhanced for-loop .....	19-5, Nug-16, 43-3
ENIAC .....	S-2
enqueue .....	52-1, 55-2
Entry .....	46-2, J-3
entrySet .....	46-1, 46-2, J-3
Environment Variable .....	I-4, X-2
equality of objects .....	16-2
equals .....	9-1, 16-2, 19-3, 35-4, 41-1, 56-7, J-4
equalsIgnoreCase .....	9-1
escape sequence .....	3-2, A-1, Nug-8, AC-3
ethics .....	T-2
etiquette .....	T-2
Excel, MS .....	T-2
Exception Project .....	36-11
exceptions .....	T-2
exclusive-OR, bitwise .....	27-1, Nug-3, Nug-14
exit .....	26-6
Explorer, Windows .....	E-1
expression tree .....	51-10
extends .....	35-1, Nug-15, AF-3
factorial .....	39-1
factor-pairs .....	47-2
Fibonacci project .....	39-10
Fibonacci series .....	39-4
field width .....	26-2
FIFO .....	49-2, 52-1, 55-1, Nug-11
figure of merit (hash table) .....	56-5
File class .....	23-1
file input .....	23-1
FileNotFoundException .....	36-4, K-1
file virus .....	T-1
FileWriter class .....	25-1
fill, Arrays class .....	19-3, 34-2
final .....	5-1, 35-2, Nug-10, Nug29-1
finally .....	36-3, Nug29-1
find .....	51-5, AG-1
findInLine .....	17-4, J-4
findWithinHorizon .....	17-4, J-4
flags (Formatter) .....	26-2, AD-1
float .....	C-1
floating point numbers .....	2-1, C-1
floatValue .....	21-2
floor .....	6-1, Nug27-1, J-2
floppy disk .....	S-5, T-1
flow chart .....	26-5, 47-1
flushing a file buffer .....	25-2
folder options .....	E-1
for-each style .....	19-5, Nug16-1

for-loop .....	11-1
format .....	26-1, Z-1
format specifiers and flags .....	26-2, AD-1
Formatter class .....	26-2, AD-1
forum .....	35-5, U-1
front of queue .....	52-2
full binary tree .....	54-1, W-1
GarbageCollector .....	19-1
Gates, Bill .....	S-3
Gateway Computer .....	S-4
Gb .....	S-5
generic class .....	AF-1
generic interface .....	37-5, 44-3
generics .....	37-5, 42-1, 46-2
get .....	41-1, 42-2, 42-3, 46-2, 49-1, J-2
getCurrencyInstance .....	26-1
getFirst .....	49-1, J-3
getKey .....	J-3
getLast .....	49-1, J-3
getNumberInstance .....	26-1
getPercentInstance .....	26-2
getValue .....	J-3
gigabyte .....	14-1, S-5, Y-1
GIS (Geographical Information System) .....	CS1-9
graphical user interface, (GUI) .....	S-4, X-1
greedy quantifiers .....	AC-2
grep .....	AC-1
group .....	AG-1
GUI .....	S-4, X-1
gymnastics project .....	26-4
hacker .....	T-1
hard disk .....	S-5
hard-wiring .....	S-2
hash code .....	56-5, 35-4, 56-7
hashing techniques .....	56-4
HashMap .....	46-1, 56-7
HashSet .....	45-1, 56-7
hash table .....	56-2 – 56-7
hasNext .....	17-5, 43-2, 45-1, J-3, J-4
hasNextDouble .....	J-4
hasNextInt .....	J-4
hasPrevious .....	43-2, Nug30-1
HeapPriorityQueue .....	55-3
HeapSort .....	55-6
heap tree .....	W-1, 54-1, 54-1, 55-2
height of tree .....	W-1
Hello World .....	1-1
Hewlett-Packard .....	49-3
hex .....	14-1, D-1, Nug-6, Nug-14
hoax .....	T-1
Hopper, Grace .....	S-3
horizon .....	17-4
html .....	D-1, X-1, AE-1, AE-3
IBM cards .....	S-5

IDE .....	I-4, N-1, O-1, X-1
identity theft .....	T-2
if statement .....	9-1
IllegalArgumentException .....	K-1
illegal name .....	2-2
IllegalStateException .....	K-1
image .....	56-1
implements .....	37-1, Nug-3, Nug-15
implementation perspective of interfaces .....	37-1, Nug-6
importing .....	7-1, 19-3, 20-4, I-1
include .....	V-2
increment .....	4-2, 4-3, 41-2
indexOf .....	17-1, 41-1, 42-3, 49-1, Nug-17, J-1
infinite loop .....	11-1
infix form .....	49-4, 51-10
inheritance .....	16-2, 35-1
initialization block .....	Nug20-1
initialize .....	2-1, 18-1, 18-3, Nug21-1
initializing expression .....	11-1, 12-1
initializing object arrays .....	19-1, Nug-13
initializing state variables .....	16-3
initializing variables .....	16-4
inner class .....	46-2, 53-1
inner interface .....	46-1
inner loop .....	11-3
in-order traversal .....	51-8, 51-10
input from file .....	23-1
input from keyboard .....	7-1, M-1
Input/Output .....	S-4
InputStreamReader .....	M-2
insert .....	30-4
insertion sort .....	40-6, 40-13
installing packages .....	M-1
instantiate .....	15-1, 16-2
interfaces .....	37-1
intersection of Sets .....	45-1
instance fields .....	15-1
instanceof .....	35-4, 37-3
int .....	2-1, C-1
interface .....	41-1
interior node .....	51-10, W-1
Internet .....	14-4, T-1, U-1
Internet worm .....	T-1
interpreted languages .....	V-3
interrupt .....	55-1
intersection of sets .....	45-3
intValue .....	21-2, J-1
I/O .....	S-4
IOException .....	23-2, 36-3,4, M-2
isDigit .....	13-2, Nug22-1
isEmpty .....	41-1, 42-2, 45-1, 46-2, 49-1 55-2
isLetter .....	13-2, Nug22-1, J-2
isLetterOrDigit .....	13-2, Nug22-1, J-2
isLowerCase .....	13-2, Nug22-1, J-2

isUpperCase .....	13-2, Nug22-1, J-2
isWhitespace .....	13-2, Nug22-1, J-2
iterator .....	41-1, 42-1, 43-1, 45-1, Nug29-1
jar files .....	I-3, I-5
java.exe .....	X-1
javac.exe .....	X-1
javaDoc .....	44-12, X-1, AE-1
java.io .....	23-1, I-1
Java Script .....	V-2
java.text .....	26-1, I-1
java.util .....	I-1
Java virtual machine .....	I-3
javaw.exe .....	X-1
JCreator .....	19-4, M-1, O-1, X-1
Jobs, Steve .....	S-4
JVM .....	I-3
kb .....	S-5
key .....	56-1
keyboard .....	7-1, S-2, 17-6
keyed list .....	46-1
key, map .....	46-1
key-punch .....	S-5
keySet .....	46-2, 46-12, Nug25-1
key words .....	A-1
kilobyte .....	14-1, Y-1, S-5
languages, computer .....	49-3, V-1
LAN .....	46-2, T-1, U-1
lastIndexOf .....	17-2, 41-1, 42-3, 49-1
law of absorption .....	31-2, Nug24-1
leaf node .....	51-10, W-1
legal name .....	2-2
length .....	3-1, 18-2, 30-3, J-4
level of nodes .....	W-1
level-order traversal .....	51-9
license agreement .....	T-2
LIFO .....	49-2, 52-1, Nug-11
linear probing .....	56-5
linear search .....	38-3, 40-13, 50-5
line break .....	3-2, A-1
linked list .....	48-1, 49-1
LinkedList Class .....	41-1, 41-2, 44-5, 49-1, 52-1, 55-2, J-3
List interface .....	41-1, 42-1
ListIterator .....	41-1, 42-1, 43-1, 49-1, Nug30-1
load factor (hash table) .....	56-5
local area network (LAN) .....	T-1, U-1
log .....	6-2, Nug-3
logical size .....	19-2, 42-1
long .....	C-1
longValue .....	41-2
lookingAt .....	AG-2
lookup table .....	56-1
Lord Byron .....	S-1
Lovelace, Ada .....	S-1
lower bound .....	50-1

machine language .....	V-3
MacIntosh .....	S-4
macro virus .....	T-1
MalformedURLException .....	K-1
map .....	46-1, Nug25-1
Map.Entry .....	46-2, J-3
masking .....	27-4, Nug-5
Matcher class .....	AG-1
matcher method .....	AG-1
matches .....	AC-5, AG-2
Math class .....	6-1, Nug27-1
matrix .....	34-1, 34-5, AA-1
max .....	6-1, J-2
max heap .....	54-1
MAX_VALUE .....	22-2, C-1
megabyte .....	14-1, Y-1
menu .....	10-1
Merge Sort .....	19-3, 40-10, 40-13
message boards .....	35-5, U-1
methods .....	15-1
microprocessor .....	55-1
min .....	6-1, J-2
miniaturization .....	S-4
min heap .....	54-1
MIN_VALUE .....	22-2, C-1
MITS Altair .....	S-3
mixed data types .....	5-1
modulus .....	4-1, Nug-9, Nug-11
money .....	26-1, Z-1
monospaced fonts .....	54-9, AB-1
Monte Carlo technique .....	29-5
most significant bit .....	27-2, 28-1, G-1
mouse .....	CS1-9, S-4
msb .....	27-2, 28-1, G-1
MS Excel .....	T-2
MS Word .....	T-2
multiple declarations .....	4-1
multiple key sorting .....	40-18
music .....	T-2
name reversal .....	11-5
naming conflicts .....	I-1
naming conventions .....	2-2, 5-2, 15-2, 34-1
nanosecond .....	S-2
nanoTime .....	47-2
negation operator .....	8-1
negative number .....	14-4, G-1
nested ifs .....	9-4
nested loops .....	11-2
nested selection operators .....	32-1
network communications .....	S-4, T-1, U-1
new line character .....	3-2, A-1, D-1, AD-1
next .....	7-1, 17-4, 43-2, 45-1, J-3, J-4
nextBoolean.....	29-2
nextDouble .....	7-1, 29-1, Nug25-1, J-4

nextGaussian .....	29-2
nextIndex .....	43-2, Nug30-1
nextInt .....	7-1, 29-1, Nug25-1, J-4
nextLine .....	7-2, J-4
node .....	48-1, 51-1
nonsensical data .....	56-2
non-static initialization block .....	Nug20-1
NOT, bitwise .....	27-1, Nug-9
NOT, Boolean .....	8-1
NotePad .....	E-2, X-1
null .....	Nug-8, Nug-17
NullPointerException .....	19-1, K-1
Number class .....	AF-3
NumberFormat .....	26-1, Nug30-1
NumberFormatException .....	22-1, 36-3, K-1
numeric variables .....	4-1
object .....	15-1, 33-1
Object (cosmic super class) .....	16-2, 35-4, 41-2, 50-4
object perspective of interfaces .....	37-2
OCR .....	44-5, U-1
octal .....	14-1, D-1, Nug-6, Nug-14
odometer .....	G-2
operating system .....	S-4
operator precedence .....	H-1
optical character recognition .....	44-5, U-1
optimization of a program .....	47-2
OR, bitwise .....	27-1, Nug-11
OR, boolean .....	8-1, 31-1, Nug22-1
order of operations .....	H-1
outer class .....	53-1
outer loop .....	11-3
overloaded .....	29-1, Nug-2
overriding .....	16-2, 35-3, Nug-1
overwriting .....	25-1,2
package .....	I-1
Package access .....	16-4, Nug-12
package installation .....	M-1
palette .....	56-1
palletized image .....	56-1
parallel arrays .....	18-2
parameter .....	5-2, 15-2
parent node .....	W-1
parseDouble .....	22-1, 24-2
parseInt .....	14-3, 22-1, 24-2
parsing Strings (with Scanner) .....	17-3
partition .....	40-8
Pascal, Blaise .....	S-1
passing an array .....	18-3
passing by reference .....	33-1
passing by value .....	33-1
password .....	46-2, T-2
path length .....	W-1
path (tree) .....	W-1
path variable .....	X-2, I-2

pattern .....	26-2, Z-1
pattern, character .....	AC-1
Pattern class .....	AG-1
payload .....	T-1
peek .....	55-2
PEMDAS .....	4-1
percent .....	26-2, Z-1
physical size .....	19-2, 42-1
PI .....	6-1
pipeline .....	48-1
pixel .....	S-4, 56-1
PKUNZIP .....	T-2
plagiarize .....	T-2
planets .....	10-5
pointer .....	48-1, 49-1
polymorphism .....	37-4, Nug-2
pop .....	49-2
POSIX character classes .....	AC-2
postfix form .....	49-4, 51-10
post-order traversal .....	51-9,10
pow .....	6-1, J-2
precedence .....	8-2, 28-3, H-1, Nug-17
precision .....	26-3, 47-2
precomputed values .....	56-2
preconditions .....	36-1
prefix form .....	51-10
pre-order traversal .....	51-8, 51-10
preserve sign .....	28-1
previous .....	43-2, Nug30-1
previousIndex .....	43-2, Nug30-1
primitive data types .....	C-1
print .....	25-1
printing a list, set .....	41-2, 45-2
println .....	1-1, 25-1
printf.....	26-3
print server .....	55-1
PrintWriter class .....	25-1
priority .....	55-2
priority queue .....	54-1, 55-1
PriorityQueue interface .....	55-2
private .....	16-1, 16-4, Nug-12
probing (hashing) .....	56-6
Project... Add 'em Up .....	17-6
Project... A Heap of Trouble .....	54-9
Project... Array of Hope .....	18-7
Project... A Taste of Hash .....	56-6
Project... BaseClass .....	26-5
Project... Basically Speaking .....	14-5
Project... Big Bucks in the Bank .....	42-7
Project... Big Bucks Revisited .....	43-7
Project... Binary Search, Reverse Order .....	50-3
Project... Binary Search with Objects .....	50-4
Project... BST <i>find</i> Method .....	51-5
Project... Bubble Sort .....	40-3

Project... Calculator .....	10-4
Project... Cheating on Your Arithmetic Assignment ....	4-5
Project... Code Talker .....	46-9
Project... Compute This .....	6-4
Project... Concatenations Gone Wild .....	30-2
Project... Count 'em Right .....	18-5
Project... Divisors of a Number .....	47-2
Project... Don't Make Me Take That Final! .....	45-4
Project... Encryption/Decryption .....	17-9
Project... Even or Odd? .....	9-4
Project... Fibonacci .....	39-10
Project... From Me To You .....	1-3
Project... Full Name .....	7-3
Project... Gas Mileage .....	16-7
Project... Generate Random Doubles.....	29-3
Project... Generate Random Integers.....	29-3
Project... Get Rid of That Plus Sign! .....	24-3
Project... Going in Circles .....	7-3
Project... Gymnastics .....	26-4
Project... Hashing Abraham Lincoln .....	56-6
Project... HashSet/Intersection .....	45-3
Project... HashSet/Union .....	45-4
Project... Histogram .....	46-10
Project... How Far To The Line? .....	20-6
Project... Inner Class Inside a Method .....	53-2
Project... Inner Class Inside an Outer Class .....	53-2
Project... Insertion Sort .....	40-7
Project... <i>insert</i> Method for Singly Linked List .....	48-4
Project... Keep Trying .....	36-10
Project... Linear Function .....	37-7
Project... Mapping Bank Accounts .....	46-5
Project... Masking Telemetry Data .....	27-4
Project... Matrix Multiplication .....	34-5
Project... Matrix Multiplication with File Input .....	34-6
Project... Merge Sort .....	40-13
Project... Mixed Results .....	5-2
Project... Monte Carlo Technique .....	29-6
Project... Multiple Key Sorting .....	40-18
Project... Name That Celebrity .....	3-4
Project... Optimized Code for Divisors of a # .....	47-3
Project... Overdrawn at the Bank .....	15-7
Project... Pass the Gravy, Please .....	33-3
Project... Printing a Heap .....	54-8
Project... Quick Sort .....	40-9
Project ... Radix Integer Sort .....	40-15
Project ... Radix String Sort .....	40-15
Project... Reading Files .....	23-5
Project... Selection Sort .....	40-4
Project... Shifting Marquee .....	52-6
Project... Smile for the Camera .....	55-5
Project... Sorting a String Array .....	19-11
Project... Sorting BankAccount Objects Alphabetically	44-12
Project... Sorting BankAccount Objects .....	44-11
Project... Sorting BankAccount Objects using a	

Comparator .....	44-12
Project... Stack Calculator .....	49-2
Project... StackLL Class .....	49-2
Project... Student Averages .....	24-5
Project... Student Classification .....	46-11
Project... Tweaking for Speed .....	28-7
Project... Two Orders for the Price of One .....	19-11
Project... Super Optimized Code for Divisors of a # ....	47-3
Project... Weight on Other Planets .....	10-6
Project... What's My Name? .....	11-5
Project... What's That Diameter? .....	15-4
Project... Who Has Highest Priority? .....	55-3
Project... Who's Next? .....	52-4
Project... Write Student Averages .....	25-2
project creation .....	N-1, O-1
protected (access control modifier) .....	Nug-12
prototype .....	Nug22-1
public .....	15-2, 15-4, 16-4, Nug-12
publishing .....	14-4, U-1
pull .....	49-2
punch cards .....	S-5
push .....	49-2
put .....	46-2
putAll .....	46-2
quadratic probing .....	56-5
queue .....	49-2, 52-1, 55-1
Quick Sort .....	40-8, 40-13
Radio Shack .....	S-4
radix sort .....	40-13
RAM .....	Y-1
random .....	6-1, 29-1, J-2
random numbers .....	29-1, Nug25-1
read-only (enhanced for loop) .....	19-5
read-only-memory, ROM .....	S-4
realizes .....	37-4, Nug-3
reassignment of objects .....	16-2
recursion .....	39-1, 40-8, 40-10, 50-4, Nug26-1
recycle .....	T-2
reference .....	Nug-17
reference, passing by .....	33-1
regular expression .....	18-4, 3-2, J-1, AC-1
reheap down .....	54-4, 55-2
reheap up .....	55-3, 55-2
rem .....	1-1
remainder .....	4-1
remarks .....	1-1,1-2
remove .....	41-1, 42-2, 42-3, 43-2, 45-1, 46-1, 49-1, Nug30-1, J-3
removeAll .....	41-1, 45-1
removeFirst .....	49-1, J-3
removing and array, object .....	19-1
removeLast .....	41-1, 42-2, 49-1, J-3
rename .....	Nug30-1
replace .....	17-3, Nug-16, J-2, J-4

replaceAll .....	J-2, J-2, AC-5, AG-2
replaceFirst .....	J-2, AC-5, AG-2
reserved words .....	A-1
restrictive, least & most for Big O .....	40-13
retainAll .....	41-1, 45-1
reversal .....	11-5
reverse .....	J-4
reverse-order traversal .....	51-9
Reverse Polish Notation .....	49-3
RGB .....	56-2
ROM .....	S-4
root .....	51-2
round .....	6-1, Nug27-1, J-2
round-off .....	6-1, 26-1
RPN .....	49-3
RTF files .....	T-2
RuntimeException .....	K-1
saving text files .....	E-1
scanner .....	44-5, U-1
Scanner class .....	7-1, 17-4, 23-1, J-4
scientific notation .....	2-1
SDK .....	I-2
selection operator .....	32-1, Nug-9, H-2
Selection Sort .....	40-4, 40-13
sequential search .....	38-3, 40-13
set .....	41-1, 42-2, 42-3, 43-2, 49-1, Nug25-1, Nug30, J-2, J-4
setCharAt .....	30-3, 30-5, J-4
Set interface .....	45-1
setMaximumFractionDigits .....	26-1
setMinimumFractionDigits .....	26-1
setSeed.....	29-2
setValue .....	J-3
scope .....	11-2
shadowing .....	35-2
shell .....	26-6
shift (left and right) .....	28-1, Nug-9
short .....	C-1
short circuit .....	28-2, Nug-15, Nug22-1
shortValue .....	21-2
signature .....	6-1, 15-2
sign bit .....	27-2, 28-1, G-1
sign preservation .....	28-1
simple String operations .....	3-1
simulation .....	29-1
Simultaneously extending and implementing .....	37-4
sin .....	6-2
single quotation mark .....	A-1
singly linked list .....	48-1
size .....	41-1, 42-3, 45-1, 46-2, 49-1
SIZE .....	22-3
skip .....	17-4, J-4
snapshot .....	55-5
software specifications .....	14-4, U-1

sort .....	19-3, 34-2, 40-1, 44-4, 50-6, 41-2
sort, Arrays class .....	19-3, 24-4
sorting .....	40-1, 41-2
source file .....	I-2, X-1
spam email .....	17-5
specifiers (Formatter) .....	26-2, AD-1
split .....	18-4, Nug28-1, J-1, AC-3
spreadsheet .....	T-2
sqrt .....	6-1, J-2
stack .....	49-1 - 49-5
stack class .....	49-2
start method .....	AG-1
startsWith .....	17-3
state variables .....	15-1, AE-3
static .....	20-1, Nug30-1
static block .....	Nug20-1
static imports .....	20-3, 20-14
static initialization block .....	Nug20-1
static methods/variables .....	19-3, 20-1
step expression .....	11-1, 12-1
storage methods, file .....	F-1
String .....	2-1, 10-3
StringBuffer class .....	30-1, Nug-7, J-3, J-4
String constant pool .....	16-3
StringIndexOutOfBoundsException .....	K-1
student averages .....	24-6, 25-2
subclass .....	35-1,2, AF-3
subscripted variables .....	18-1, 34-1
substring .....	3-1, 30-3, Nug-4, J-1, J-4
subtree .....	51-10, W-1
Sun Microsystems .....	47-2, X-1, AE-1
super .....	35-1,-3, -7, 35-12—35-15, 36-4
superclass .....	35-1,2
swap .....	40-2
switch .....	10-1
System dialog .....	X-3
System.out.print() .....	1-2
System.out.println() .....	1-1
switch positions .....	27-4
System Variable .....	I-4, X-3
tab .....	A-1
table .....	46-1
tan .....	6-2
TEKs correlation .....	R-1
telemetry .....	27-4
template .....	AF-2
ten's complement .....	G-2
ternary conditional .....	32-1, H-2
Texas TEKS/TAKS correlation .....	R-1
text files .....	25-2, E-1, F-1
text parsing .....	17-4
this .....	35-3, 35-11, 35-12,13,14,15, 45-6
throw .....	36-1
throws .....	23-2, 36-2, M-1

Time Allocation for Lessons .....	P-1
time/date format .....	AD-1, AD-2
timer .....	47-2
time zone .....	AD-2
toArray .....	41-1, 45-1, 49-1
toBinaryString .....	22-2
toCharArray .....	19-2, J-1
toDegrees .....	6-2
toHexString .....	22-1
toLowerCase .....	3-1, 13-3, J-2
toOctalString .....	22-1
Tools menu .....	E-1
toRadians .....	6-2
toString .....	14-3, 19-3, 22-1, 30-1, 35-4, 46-3, 49-1, 49-6, 56-7, J-1, J-4 3-3, 13-3, J-2
toUpperCase .....	S-1
tracejectory tables .....	51-4, 51-8,9, W-1
traversing a binary tree .....	48-2
traversing a list .....	44-8, 51-1
tree .....	46-1
TreeMap .....	45-1
TreeSet .....	17-3
trim .....	T-1
Trojan horse virus .....	S-4
TRS 80 Model III .....	4-3
truncation .....	8-1, 31-1,4,5
try .....	36-3, Nug29-1
TurtleGraphics .....	M-1
two-dimensional arrays .....	34-1, Nug24-1
two's complement .....	G-1
type parameter .....	42-1, 43-3, 45-1, 46-2, AF-1
type safety .....	42-2, 45-1, 46-2
unary operator .....	H-1
unbalanced tree .....	51-6
unboxing .....	21-2
unchecked exception .....	36-2
underscore separators .....	2-1
undo .....	49-3
Unicode .....	13-1
Unicode groups .....	AC-2
union of Sets .....	45-1, 45-4
UnknownHostException .....	K-1
UnsupportedOperationException .....	K-1
upper bound .....	50-1
useDelimiter .....	17-4, J-4
User Variable .....	I-4, X-3
UTC .....	47-2, AD-2
value, lookup table .....	56-1
Value, hash table .....	56-3
value, map .....	19-2, 46-1
valueOf .....	19-2, 22-2, Nug-15, J-1
value, passing by .....	33-1
values .....	46-2

variable types .....	2-1
Vb.net .....	V-2
Vector .....	41-1, 41-2, 44-5
virus .....	T-1
wildcard .....	I-1
Windows 95, 98, NT, Millennium, 2000, XP .....	S-4
Visual Basic .....	V-2
void .....	15-2
von Neuman, John .....	S-2
WAN .....	U-1
web browser .....	V-2
weight .....	10-5
while-loop .....	12-1
whitespace .....	13-2, 18-4, AC-2
wide area network (WAN) .....	U-1
wildcard character .....	I-1, AF-4
Windows .....	V-2
Windows 98 .....	E-2, I-1, S-4
Windows 2000 .....	X-1
Windows Explorer .....	E-1, X-1
Windows Scripting Host .....	T-2
Windows XP .....	X-1
Winzip .....	I-5
word characters .....	17-5
Word, MS .....	T-2
Wordpad .....	E-2
World War II .....	S-1
worm .....	T-1
Wozniak, Steve .....	S-4
wrapper classes .....	21-1, Nug-14, 42-1
writing to a text file .....	25-1
WSH .....	T-2
XOR .....	27-1, Nug23-1
XP .....	S-4
zip .....	T-2