

Index

A

- abstract, 136
- acute triangle, 53
- ADD, 12, 20
- ADDED TO, 12
- addition keywords, 4–6
- addition method, tried-and-true method
 - equations, 156
- adjacent keywords, 24–26, 184
- Algebra For Dummies* (Sterling), 195
- Algebra Homework Help Web site, 196
- algebraic equations, 40
- algebraic expressions, 40
- amount, percent, 80
- AND, 4, 6–7, 8, 9, 11, 20
- angles, triangle, 55
- answering questions, common errors, 184–185
- area
 - rectangles, 59–60
 - squares, 61–62
 - triangles, 55–56
- avoiding common errors
 - about, 182
 - diagram, 183
 - estimate, 183
 - identify variables, 183
 - translation errors, 183–184

B

- base
 - percent, 80
 - triangle, 55

- board method equations
 - about, 135
 - distance problems, 149–153
 - investment problems, 141–145
 - mixture problems, 145–149
 - money problems, 135–141
- board method problems
 - about, 89
 - consecutive even integers, 99–102
 - consecutive integers, 94–98
 - consecutive odd integers, 102–104
 - other, 105–113
 - simple, 90–94
- Bobrow, Jerry, 44, 195
- books, CQR Resource Center, 195
- BY, 8, 9, 20

C

- change of order indicators keywords, 11–15
- Chapter 1 CQR review, 187
- Chapter 2 CQR review, 187–188
- Chapter 3 CQR review, 188
- Chapter 4 CQR review, 188–189
- Chapter 5 CQR review, 189
- Chapter 6 CQR review, 189–190
- Chapter 7 CQR review, 190–191
- Chapter 8 CQR review, 191
- Chapter 9 CQR review, 192
- Chapter 10 CQR review, 192–193
- Chapter 11 CQR review, 193
- checking solutions, equations, 43–47, 193–194

checking translations, equations, 47–49
 clearing fractions, 75, 91
CliffsQuickReview Algebra I (Bobrow), 195
CliffsQuickReview Basic Math and Pre-Algebra (Bobrow), 44, 195
 coefficient, 14
 combining like terms, simplifying expressions, 31–33
 commas
 in expressions, 184
 and IS, translating, 17–20
 common errors
 about, 175
 answering questions, 184–185
 avoiding, 182–185
 equation solving, 184
 variable omission, 175–179
 variable reversal, 179–182
 Commutative Property of Addition, 13
 consecutive even and odd integers, tried-and-true methods, 123–126
 consecutive even integers, board method problems, 99–102
 consecutive integers
 about, 94
 board method problems, 94–98
 tried-and-true methods, 119–123
 variable omission, 177–178
 consecutive odd integers, board method problems, 102–104
Contemporary's Number Power: Real World Approach to Math: Word Problems (Tamarkin), 195
 CQR Resource Center books, 195
 CQR review
 about, 187
 Chapter 1, 187
 Chapter 2, 187–188
 Chapter 3, 188
 Chapter 4, 188–189
 Chapter 5, 189
 Chapter 6, 189–190
 Chapter 7, 190–191

Chapter 8, 191
 Chapter 9, 192
 Chapter 10, 192–193
 Chapter 11, 193
 solutions, 43–47, 193–194

D

diagrams
 avoiding common errors, 183
 label, 90
 DIFFERENCE BETWEEN, 6–7, 20
 direct translation strategy, 5, 38
 distance problems
 about, 149–153, 169
 $d=rt$ formula, 169–170
 tried-and-true method equations, 169–172
 distributing negative numbers, 33–35
 distributive property
 about, 29
 of multiplication over addition, 30–31
 DIVIDE, 9, 14, 20
 DIVIDED BY, 10
 DIVIDED EQUALLY, 10
 DIVIDED INTO, 14
 division keywords, 9–11
 DOUBLE, 8

E

elimination method, 155
 equality keywords equations, 37–39
 EQUALS, 37
 equations
 about, 37, 50–52
 algebraic equations, 40
 algebraic expressions, 40
 checking solutions, 43–47
 checking translations, 47–49
 common errors, solving, 184
 keywords equality, 37–39
 simple linear, 39–43

estimate, avoiding common errors, 183
 expressions, 3
 extraneous information in problems, 184

F

FEWER, 7
 FRACTION OF, 8
 FROM, 12, 13–14, 20, 183

G

GAIN, 4, 6
 geometry problems
 about, 53
 multiple shapes, 63–65
 rectangles, 58–60
 squares, 60–62
 sum of measures of angles, 56–58
 triangles, 53–58
 visualized word problems, 66–70
 grouping symbols, 3

H

harmless parentheses, 20
 height, triangle, 55
 homogeneous units, 6

I

identify variables, avoiding common errors, 183
 identity property of multiplication, 34
 implied multiplication, 14
 INCREASE OF, 6
 INCREASED BY, 4
 integers
 about, 94
 board method problems, 94–98
 consecutive even and odd integers, 123–126
 consecutive even integers, 99–102
 consecutive integers, 94–98, 119–123

consecutive odd integers, 102–104
 tried-and-true methods, 119–123
 variable omission, 177–178

INTO, 14–15, 20

investment problems

 board method equations, 141–145
 tried-and-true method equations, 162–165

IS

 about, 37
 comma and, 17–20

IS EQUAL TO, 37

IS THE SAME AS, 38

K

keywords

 AND, 4, 6–7, 8, 9, 11, 20
 BY, 8, 9, 20
 FROM, 12, 13–14, 20, 183
 INTO, 14–15, 20
 TO, 12, 20, 183
 about, 3–4
 ADD, 12, 20
 ADDED TO, 12
 addition, 4–6
 adjacent, 24–26
 change of order indicators, 11–15
 DIFFERENCE BETWEEN, 6–7, 20
 DIVIDE, 9, 14, 20
 DIVIDED BY, 10
 DIVIDED EQUALLY, 10
 DIVIDED INTO, 14
 division, 9–11
 DOUBLE, 8
 equality, 37–39
 EQUALS, 37
 FEWER, 7
 FRACTION OF, 8
 GAIN, 6
 INCREASE OF, 6
 INCREASED BY, 4
 IS, 17–20, 37

keywords (*continued*)

IS EQUAL TO, 37
 IS THE SAME AS, 38
 leading, 4
 LESS, 7
 LESS THAN, 13
 LOSS, 7
 MINUS, 6–7
 MORE, 6
 MORE THAN, 12
 multiplication, 8–9
 MULTIPLY, 8, 20
 PER, 10
 PERCENT OF, 8
 PLUS, 4
 PRODUCT OF, 8, 20
 QUOTIENT OF, 9, 20
 RESULTS IN, 38
 SUBTRACT, 13, 20
 SUBTRACTED FROM, 13
 subtraction, 6–8
 SUM, 4
 SUM OF, 20
 TAKE AWAY, 7
 THAN, 12, 26, 183
 THE RESULT IS, 38
 TIMES, 8
 TOTAL, 4
 TOTAL OF, 20
 TRIPLE, 8
 TWICE, 8
 YIELDS, 37

L

label diagrams, 90
 leading keywords, 4, 20–24, 184
 least common denominator (LCD), 74,
 91, 130
 least common multiple (LCM), 74,
 110, 130
 LESS, 7
 LESS THAN, 13
 like terms, 29
 LOSS, 7

M

Math Story Problems Web site, 196
 MINUS, 6–7
 mixture problems
 about, 145–149
 tried-and-true method equations,
 165–169
 money problems, board method
 equations, 135–141
 MORE, 6
 MORE THAN, 12
 Ms. Linquist Web site, 196
 multiple operations, 17
 multiple shapes, geometry problems,
 63–65
 multiplication keywords, 8–9
 multiplication turnaround words, 14
 MULTIPLY, 8, 20

N

nonboard problems, tried-and-true
 methods, 126–133

O

obtuse triangle, 53
 order of operations, 44

P

parentheses
 about, 17, 183–184
 adjacent keywords, 24–26
 harmless, 20
 leading keywords, 20–24
 translating comma and IS, 17–20
 turnaround words, 26
 PER, 10
 PERCENT OF, 8
 percent problems, 80–82
 percent word problems, 82–85
 percentages, 73
 percents, 73, 80

perimeter
 rectangles, 58–59
 squares, 60–61
 triangles, 54–55
 perpendicular, base and height of
 triangle, 55
 PLUS, 4
 Polya, George, 117
 Polya's four-step process, 117–119
Prealgebra: A Worktext (Wright), 195
 PRODUCT OF, 8, 20
 proportion problems, 73–75
 proportion word problems, 76–79
 proportions, 73

Q

QUOTIENT OF, 9, 20

R

ratio, 73
 rectangles
 area, 59–60
 geometry problems, 58–60
 perimeter, 58–59
 RESULTS IN, 38
 right triangles, 53

S

simple board method problems,
 90–94
 simple linear equations, 39–43
 simplified, 13
 simplified expressions, 39
 simplifying expressions
 about, 29–30
 combining like terms, 31–33
 distributing negative numbers,
 33–35
 distributive property of
 multiplication over addition,
 30–31

solutions, CQR review, 193–194
 solving simple linear equations,
 39–43
 squares
 area, 61–62
 perimeter, 60–61
 Sterling, Mary Jane, 195
 substitution method, 155
 SUBTRACT, 13, 20
 SUBTRACTED FROM, 13
 subtraction keywords, 6–8
 subtraction turnaround words,
 13–14
 SUM, 4
 SUM OF, 20
 sum of measures of angles, 56–58
 summation problems using board
 method, 89–115

T

TAKE AWAY, 7
 Tamarkin, Kenneth, 195
 THAN, 12, 26, 183
 THE RESULT IS, 38
 TIMES, 8
 TO, 12, 20, 183
 TOTAL, 4
 TOTAL OF, 20
 translating
 comma and IS, 17–20
 expressions, 3
 Translating Word Problems Web site,
 196
 translation errors, 183–184
 translations, checking in equations,
 47–49
 triangles
 about, 53–58
 area, 55–56
 perimeter, 54–55
 right, 53–54
 vertices, 53

tried-and-true-method equations
 about, 155
 addition method, 156
 distance problems, 169–172
 elimination method, 155
 investment problems, 162–165
 mixture problems, 165–169
 substitution method, 155

tried-and-true methods
 about, 117
 consecutive even and odd integers,
 123–126
 consecutive integers, 119–123
 nonboard problems, 126–133
 Polya's four-step process, 117–119
 steps, 119

TRIPLE, 8

turnaround words
 about, 11–12, 184
 division turnaround words, 14–15
 multiplication turnaround words, 14
 parentheses, 26
 subtraction, 13–14

TWICE, 8

U

Understanding Algebra Web site, 196
units, 6

V

value, 136
variable omission
 common errors, 175–179
 consecutive integer problems,
 177–178
variable reversal, 179–182
variables, 3, 74
vertices, triangles, 53

W

Web sites
 Algebra Homework Help, 196
 CliffsNotes books, 2
 CQR Resource Center, 195
 Math Story Problems, 196
 Ms. Linquist, 196
 Translating Word Problems, 196
 Understanding Algebra, 196
 Webmath, 196
 Wiley, 195
Webmath Web site, 196
Wiley Web sites, 195
Wright, D. Franklin, 195

Y

YIELDS, 37

