

EP Math 5/6

Workbook Answers



Easy Peasy All-In-One-Homeschool

Please contact us if you find any incorrect answers so that we can get them fixed right away.

ADDITION AND SUBTRACTION

LESSON 1 Basic Addition

A 7

B 7

C 14 14 15
12 10 9
17 8 7
12 13 10
7 10 9
13 10 18
11 16 11
10 8 6
12 8 6
5 5 9
14 16 13
11 11 12
4 15 6

LESSON 1 Practice

A 5 4 5
3 3 5
4 5 0
5 3 4
2 5 4

B 16 9 14
11 18 12
15 11 17
10 6 12
10 12 12
16 13 14
8 11 14
8 10 10
9 11 7
15 5 8
10 9 13
6 7 13

LESSON 2 Basic Subtraction

A 3

B 4

C 6 9 8
5 7 5
7 6 8
8 4 6
3 6 3
9 9 7
7 8 4
4 3 5
9 9 8
2 4 0
5 9 5
5 7 3
7 9 8

LESSON 2 Practice

A 4 2 0
0 2 2
0 1 1
3 1 0
1 3 5

B 6 6 7
7 9 5
4 4 9
7 2 3
4 4 9
5 6 8
6 9 5
9 5 8
1 2 8
2 0 4
6 9 8
8 3 2

LESSON 3 Adding 2-Digit Numbers ...

C 18 19 19 20 37 28
79 45 88 96 59 97
65 76 87 99 67 89

LESSON 3 Practice

- A** 19 19 17
16 12 17
15 18 10
18 15 19
13 18 17
- B** 78 87 86 79 99 56
57 69 98 48 48 99
60 66 89 88 79 87

LESSON 4 Subtracting Different Ways

- A** 7, 3
- B** 11, 5
- C** $19 - 6 = 13$
 $13 - 8 = 5$
 $12 - 7 = 5$
 $16 - 9 = 7$
 $15 - 6 = 9$
 $15 - 12 = 3$
 $14 - 8 = 6$
 $11 - 3 = 8$

LESSON 4 Practice

- A** 8 6 9
9 4 5
6 8 9
8 9 5
6 5 3
5 13 6
2 5 5
5 10 6
- B** $18 - 9 = 9$
 $12 - 8 = 4$
 $14 - 7 = 7$
 $13 - 7 = 6$
 $11 - 4 = 7$
 $16 - 8 = 8$

LESSON 5 Adding 3-Digit Numbers ...

- C** 611 1623 1738 582 761
828 1471 1329 1156 1184

LESSON 5 Practice

- A** 102 88 96
134 109 95 108 69 150
- B** 842 1032
841 1000 844 1706 1303

LESSON 6 Subtracting 3-Digit Numbers ...

- B** 91 576 665 272 102
355 574 137 63 235
359 138 253 377 556

LESSON 6 Practice

- A** 16 45 30 14 4 16
55 40 42 32 37 33
38 33 15 38 54 40
- B** 366 463 86 353 498
292 416 568 115 573

LESSON 7 Borrowing & Mental ...

- B** 3833
- C** 2627 3638 3265 3545 2576
4728 2719 5569 1342 3635

LESSON 7 Practice

- A** 33 9 8 31 48 42
38 27 44 28 16 14
48 37 32 25 46 58
- B** 5318 6628 2573 5563 2656
2445 3638 4255 3575 2594

LESSON 8 Adding Multi-Digit Numbers

- A** 1,534,184
- B** 12,993 12,826 10,177 12,356 11,147
11,954 11,218 15,918 6,750 13,864
746,418 1,491,839 1,622,732 5,464,209

$888 + 88 + 8 + 8 + 8 = 1,000$

LESSON 8 Practice

- A** 1536 1427 1018 1183 1930
 1175 1734 1500 875 1041
 1446 1313 958 995 1331
- B** 11,751 15,736 16,917 12,630 10,139
 1,426,389 1,295,016 3,427,088 4,958,619

LESSON 9 Subtracting Across Zeros

- A** 564
- B** 1245
- C** 267 218 445 616 82
 371 325 337 266 155
 5350 650 3923 1290 3025

LESSON 9 Practice

- A** 555 216 333 282 563
 277 239 694 458 445
 366 431 537 377 532
- B** 505 228 446 348 381
 507 176 267 357 475

LESSON 10 Word Problems: Addition ...

- A** 28 markers
 32 cups
 16 flowers
 \$173
 22 ducks
 69 apples

LESSON 10 Practice

- A** 28 stickers
 \$18
 52 bags
 68 problems
 78 fish
 59 people
 130 fish
 66 seashells
 50 miles
 15 minutes

LESSON 11 Introduction to Negative ...

- A** positive, negative, negative, positive, positive,
 negative
- B** -4
- C** -4 -3 -5
 -3 -5 -2
- D** -10 -4 6
 -20 0 10 25
 -40 -24 8 32
 -40 -10 30 50

LESSON 11 Practice

- A** -5 -4 -7
 -6 -8 -9
 -7 -9 -6
 -3 -6 -9
- B** -12 -6 6 15
 -20 -12 4 16
 -20 -5 15 25
 -50 -30 0 40
- C** -6 15
 8 -40

LESSON 12 Ordering Negative Numbers

- B** -7, -3, 0, 2, 6
 -16, -2, 8, 14
 -50, -28, -15, 32
 -95, -61, -40, -27
- C** 6, 2, -5 8, 0, -3 -1, -4, -7, -9
 13, -10, -17 -31, -45, -62 26, 11, -38, -57

LESSON 12 Practice

- A** -9, -4, -1, 3, 8
 -9, -7, -6, -2
 -24, -12, 6, 38
 -80, -16, 45, 74
 -94, -71, -60, -32
- B** 3, -4, -7 2, 0, -5 -1, -3, -5, -8
 16, -10, -18 -20, -45, -75 36, -24, -59 -86

Seven (SEVEN – S = EVEN).

LESSON 13 Adding Negative Numbers

- A** -12 -2
6 -3
- B** -9 -11 -16
-17 -15 -10
-8 -7 -13
- C** 2 -5 4
4 -6 -1
3 -2 0
1 3
6 -6
-7 -18

LESSON 13 Practice

- A** -9 -10 -15
-12 -16 -13
-11 -11 -8
- 0 -4 5
4 -5 -3
6 -1 4
- 2 6 -5
3 -10 -3
-13 0 -14
1 -14 -7
- 1 0
4 -6
-4 -3
-7 -16

LESSON 14 Adding and Subtracting ...

- B** -7 6 -6
13 12 2
10 -3 -13
- C** 5 16 -3
-10 -9 3
12 0 -6
-5 3 -10
4 12 3
-11 -1 -3
12 -3 -11
-1 4 4

LESSON 14 Practice

- A** 2 0 -15
-2 8 -9
-1 4 -7
0 -5 -10
-3 4 -9
- B** 13 10 0
11 16 -3
10 8 -2
12 8 0
5 16 -5
- C** -2 9 5
-11 7 -13
-3 -11 -5
-4 2 -14
-10 -1 4
6 12 -17

LESSON 15 Word Problems: Negative ...

- A** b, b, a, a, b
- B** -7 °C
29,087 feet
\$117
\$22

LESSON 15 Practice

- A** +68
-1,000
+1,200
-5
+18
- B** 10 °C
-525 feet
\$53
25 °C
-470 feet
4 °C
\$132
1,670 feet

MULTIPLICATION AND DIVISION

LESSON 16 Basic Multiplication & ...

- A** 36, 36
- B** 0 0 3127
- C** 54 48 49
20 35 27
12 72 12
16 6 56
18 10 25
81 42 24
28 30 64
40 21 15
9 36 16
14 45 63
0 32 18
36 24 18

LESSON 16 Practice

- A** 21 12 36
10 30 56
16 15 18
42 25 20
27 12 24
40 48 24
32 18 12
14 30 35
48 28 12
63 40 54
6 8 32
16 18 81
18 54 14
45 27 28
21 64 72
45 36 63
9 16 0
72 42 20

LESSON 17 Multiplying by 10, 11, and 12

- A** 0 0 0
10 11 12
20 22 24
30 33 36
40 44 48
50 55 60
60 66 72
70 77 84
80 88 96
90 99 108
100 110 120
110 121 132
120 132 144

- B** 1st square: 2nd square: 3rd square:

60	144	77	21	24	36
40	96	121	33	60	90

LESSON 17 Practice

- A** 77 55 33
22 110 121
132 11 99
44 66 88
- B** 60 12 96
84 108 36
120 48 144
24 132 72
- C** 88 70 22
30 24 72
108 36 60
56 66 42
90 24 18
36 40 44
54 84 50
48 99 36

LESSON 18 Multiplying by Multiples of 10

- A** 72000, 8400
- B** 350 400 990
 360 540 770
 810 420 1,080
 240 480 550
 560 450 960
 250 160 720
 320 630 880
 2,100 3,000 49,000
 3,600 6,400 6,600
 600 360 4,800

LESSON 18 Practice

- A** 70 400 50
 110 120 90
 100 600 800
 1,000 3,000 0
- B** 400 630 210
 540 300 360
 420 350 640
 240 150 270
 560 490 720
 600 2,500 4,800
 220 8,100 1,600
 960 2,400 9,900
 550 7,200 10,800

LESSON 19 Basic Division

- A** 4, 9
- B** 4 r 2
- C** 36, 4
- D** 6 4 8
 6 8 7
 8 7 5
- E** 64 9 9
 6 35 81
 5 5 5
 72 36 56

LESSON 19 Practice

- A** 2 7 8
 6 6 9
 3 7 12
 8 5 7
 8 2 7
 3 7 10
- B** 3 3 9
 24 8 21
 4 45 6
 2 7 6
 81 4 24
 7 42 72
 12 40 7
 48 2 32
 2 30 3
 8 4 7

LESSON 20 Introduction to Long Division

- A** $\frac{9}{8} \frac{72}{72}, \frac{72}{8} = 9$
- C** 114 48 70 18
 3872 494 1213 1834

LESSON 20 Practice

- A** $\frac{3}{7} \frac{21}{21}, \frac{21}{7} = 3$
 $\frac{9}{5} \frac{45}{45}, \frac{45}{5} = 9$
 $\frac{8}{4} \frac{32}{32}, \frac{32}{4} = 8$
- B** 82 27 36 81
 179 94 354 68
 327 609 579 315

LESSON 21 Multiplying 2-Digit Numbers

- C** 348 216 4,613 2,615 5,136
 2,511 3,216 4,161 7,221 2,537

The letter "E."

LESSON 21 Practice

A 7,008 3,852 1,101 1,140 2,895
 2,874 2,577 2,079 4,780 1,568

B 1,352 3,256 1,794 2,205 3,440
 720 2,544 1,690 2,175 1,978

LESSON 22 Multiplying Multi-Digit ...

A 2nd row: 51120
 3rd row: 113600
 Answer: 166424

B 341,504 164,700 556,200 188,250
 111,300 240,084 350,464 621,114

LESSON 22 Practice

A 2,322 5,838 2,108 6,497 3,150
 163,008 368,516 202,335 209,811
 285,540 242,250 152,096 187,083

LESSON 23 Lattice Multiplication

A 1,484
 22,848
 662,592

B 413,525 388,815 457,056 366,231

LESSON 23 Practice

A 5,502 7,659 3,807 2,242 2,914
 725,546 135,072 188,048 163,850
 748,410 282,170 317,925 307,432

LESSON 24 Long Division with ...

A 89, 5, 17, 4

C Incorrect: $(53 \times 4) + 2 = 214$

D 52 r 3 161 r 2 84 r 6 232 r 1
 2305 r 1 440 r 6 327 r 3 1609 r 1

LESSON 24 Practice

A 137 r 5 45 r 6 41 r 3 190 r 1
 183 r 3 56 r 3 84 r 2 106 r 6
 1067 r 4 2714 r 2 3820 r 1 590 r 2
 546 r 4 267 r 3 1811 r 1 755 r 2

LESSON 25 Word Problems: ...

B 4 pieces
 9 stamps
 8 bags
 3 peaches
 \$11
 79 coins

LESSON 25 Practice

A 3 weeks
 9 canoes
 \$27
 5 bags
 6 tickets
 20 minutes
 6 beads
 15 apples
 47 coins
 \$1

LESSON 26 Dividing by Multi-Digit ...

B 27 r 7 13 r 4 6 r 59 24 r 247
 374 r 1 93 r 16 169 33 r 148

There were only 3 people: grandfather, father, and son.

LESSON 26 Practice

A 30 r 11 23 r 9 15 r 3 22 r 309
 19 r 18 16 r 39 18 r 25 36
 121 219 r 16 117 r 24 9 r 153
 314 r 16 147 r 49 308 14 r 281

LESSON 27 Partial Quotient Division

B 18 r 15 28 r 22 5 r 54 36
 817 r 9 235 118 r 32 11 r 341

LESSON 27 Practice

A 7 r 24 15 r 1 5 r 58 45
 53 r 8 12 13 r 42 31 r 126
 215 r 2 157 r 35 77 r 6 30 r 104
 246 220 r 10 145 r 44 8 r 281

LESSON 28 Word Problems: Addition ...

- A** \$532
 502 goldfish
 103 bags of potatoes
 18 pages
 164 unbroken seashells
 67 paper cups
 173 stamps
 180 candies
 1,451 fiction books

LESSON 28 Practice

- A** 103 baseball cards
 17 dimes
 13 cents
 \$83
 \$35
 43 problems
 \$25
 89 beads
 45 roses
 124 people

LESSON 29 Place Value

- A** = $30,000 + 2,000 + 900 + 10 + 7$
 = $400,000 + 6,000 + 900 + 30 + 2$
 = $8,000,000 + 300,000 + 20,000 + 500 + 9$
- B** = fourteen thousand, thirty-seven
 = two hundred sixty thousand, five hundred
 = five million, seven hundred two thousand,
 eight hundred twenty-six
- C** ten thousands hundreds
 thousands hundred thousands
 millions ten millions

LESSON 29 Practice

- A** = $20,000 + 1,000 + 700 + 30 + 5$
 = $300,000 + 8,000 + 50 + 4$
 = $9,000,000 + 800,000 + 100 + 6$
- B** = twenty-three thousand, one hundred six
 = five hundred four thousand, thirty-five
 = four million, eight hundred fifty-three
 thousand, nine hundred twenty-eight
- C** thousands hundred thousands
 hundreds ten millions
 ten thousands millions
- D** 2,345,678
 8,765,423
 2,346,785
 3,876,425

LESSON 30 Rounding Whole Numbers

- B** 270 300 0
 4,530 4,500 5,000
 8,370 8,400 8,000
 63,100 63,100 63,000
 89,540 89,500 90,000
 230,490 230,500 230,000
- C** 6000 5000
 $\begin{array}{r} x \quad 80 \\ \hline 480,000 \end{array}$ $\begin{array}{r} x \quad 50 \\ \hline 250,000 \end{array}$

LESSON 30 Practice

- A** 40 1,760 43,070
 890 2,360 36,400
 500 8,110 59,830
- B** 100 5,400 52,900
 600 3,000 94,200
 900 4,700 27,600
- C** 0 3,000 40,000
 0 9,000 16,000
 1,000 2,000 64,000
- D** 65
 350
 8,499

LESSON 31 Multiplying and Dividing ...

- A** -36 35
-8 5
- B** -54 48 -49
-20 -35 27
-12 -72 0
0 36 56
18 28 -81
- C** -1 6 -8
-7 -6 -9
5 -5 4
9 32 -7
-5 -7 6

LESSON 31 Practice

- A** -81 -42 -7
-28 30 64
40 21 -15
9 -32 0
-314 -2,002 -4,864 3,740 1,281
- B** -1 3 -8
-8 9 7
-6 -3 -9
16 -2 4
-124 58 -57 45

LESSON 32 Introduction to Exponents

- A** $4^5, 1^7$
- C** 9^2 100^3
 4^4 9^6
 2^{12}
 37^{10}
- D** 1 125
32 81
0 16
12 1,000

LESSON 32 Practice

- A** 3^3 74^4
 165^2 8^6
 1^{11}
 10^9
- B** 0 27
64 9
1 64
100,000 8,000
- C** > > =
= < <
> < >

5 4 5 + 5 = 550 (Add a straight line to the first "+" to make it a "4.")

NUMBER PROPERTIES

LESSON 33 Commutative Law of ...

- A** 14 32 19
14 32 19
- B** 72 350 56
72 350 56
- C** $62 + 15$ 17×48
 $48 + 24$ 35×92
- D** 77 90
75 48
87 630
139 240

LESSON 33 Practice

- A** $23 + 88$ 47×13
 $52 + 63$ 20×72

B

		O	
O			O
	O		O

- C** 49 64
35 54
95 420
108 630

D Answers will vary.

LESSON 34 Associative Law of ...

- A** 19 64
19 64
- B** $7 + (6 + 2)$ $6 \times (8 \times 3)$
 $(3 + 8) + 5$ $(9 \times 5) \times 7$
- C** 14 48
88 120
97 270
- D** $11 + (9 + 34) = (11 + 9) + 34 = 54$
 $(8 + 23) + 17 = 8 + (23 + 17) = 48$
 $5 + (95 + 26) = (5 + 95) + 26 = 126$
 $(7 \times 4) \times 5 = 7 \times (4 \times 5) = 140$
 $3 \times (2 \times 8) = (3 \times 2) \times 8 = 48$

LESSON 34 Practice

- A** $5 + (7 + 3)$ $9 \times (2 \times 4)$
 $(4 + 6) + 8$ $(5 \times 4) \times 6$

B

	O
O	
	O

- C** $= (4 \times 5) \times 32$ $= (5 \times 2) \times 24$ $= 6 \times (8 \times 50)$
 $= 20 \times 32$ $= 10 \times 24$ $= 6 \times 400$
 $= 640$ $= 240$ $= 2,400$

- D** 76 90
57 48
144 140
66 270

LESSON 35 Distributive Law of ...

- A** $(6 \times 20) - (6 \times 5) = 120 - 30 = 90$
- C** $(7 \times 5) + (7 \times 4) = 35 + 28 = 63$
 $(4 \times 8) - (4 \times 3) = 32 - 12 = 20$
 $(9 \times 10) + (9 \times 6) = 90 + 54 = 144$
 $(8 \times 20) - (8 \times 5) = 160 - 40 = 120$
- D** $8 \times (7 + 3)$
 $6 \times (5 + 7)$
 $9 \times (9 - 5)$
 $4 \times (7 - 4)$

LESSON 35 Practice

- A** $(4 \times 9) + (4 \times 3) = 36 + 12 = 48$
 $(7 \times 6) - (7 \times 4) = 42 - 28 = 14$
 $(9 \times 8) + (9 \times 2) = 72 + 18 = 90$
 $(8 \times 9) - (8 \times 4) = 72 - 32 = 40$
 $(2 \times 30) + (2 \times 6) = 60 + 12 = 72$
 $(5 \times 10) - (5 \times 2) = 50 - 10 = 40$
 $(3 \times 70) + (3 \times 5) = 210 + 15 = 225$
 $(6 \times 40) - (6 \times 6) = 240 - 36 = 204$
- B** $3 \times (3 + 5)$
 $6 \times (3 - 2)$
 $7 \times (7 + 5)$
 $5 \times (7 - 4)$
 $4 \times (7 + 10)$
 $8 \times (8 - 3)$
 $11 \times (5 + 8)$
 $10 \times (9 - 5)$

LESSON 36 Absolute Value

- A** 8 0
B 5 42 126
 2 79 413
 7 35 528
C 3 33
 5 18
 16 64

D

0	0		0
	0	0	
			0

$$200 (= 10 \times 20)$$

LESSON 36 Practice

- A** 0 21 728
 9 58 856
 5 99 543
B 0 14
 10 6
 41 52

C

0		0	
0		0	0

D

0	0	0	
	0	0	0

E

	0	0	0
0	0		

LESSON 37 Comparing Absolute Values

- B** > < <
C -43, -10, |10|, |-35|
D = > <
 < < >
E 2, |-5|, 8 -5, 10, |-12| -8, -2, |-1|, |-6|
 -9, |0|, |4| -32, 42, |-70| -47, 0, |3|, |-15|

LESSON 37 Practice

- A** > = <
 < < >
 > > <
B -82, -43, -30, -27, -15, -8, -1, 0
 |0|, |-1|, |-8|, |-15|, |-27|, |-30|, |-43|, |-82|
C They are in reverse order.
D -9, |-3|, 6 -7, |-8|, 12 -6, |-2|, |3|, 9
 -7, |-1|, |5| -30, |-14|, 22 -15, |0|, |-5|, 25

$$1, 2, 3 (1 + 2 + 3 = 1 \times 2 \times 3 = 6)$$

LESSON 38 Identity Property of 0 and 1

- A** 1 -508 3,127
B 1 -508 3,127
C -6 85
 -125 0
 0 35
D -539
 0
 0
 76
 0

LESSON 38 Practice

- A** Answers will vary.
B Answers will vary.
C Answers will vary.
D 1,245 0
 -8 54
 836 1
 0 0
 512 8
E 745
 -95
 -256
 0
 20

LESSON 39 Inverse Property of ...**A** Answer will vary.**B** Answer will vary.

C -7 3 -25
 -5 -2 25
 $\frac{1}{6}$ $\frac{1}{9}$ 3
 4 8 $\frac{1}{10}$

D

		O
O		
O		
		O
	O	

LESSON 39 Practice

A 5 -8 -9
 $\frac{1}{2}$ 9 40
 -4 -6 $\frac{1}{18}$
 $\frac{1}{8}$ 12 18

B E A
 I F
 C B
 J H
 D I
 E A
 B G
 D H

LESSON 40 Dividing by Zero

A

O			O
	O		O
	O	O	

B 0 45
 94 undefined
 undefined 0

LESSON 40 Practice

A

O			O
	O	O	
O		O	

B Answers will vary.**LESSON 41** Word Problems: ...

A 60 problems
 16 books
 336 cans
 12 pages
 12 miles
 11 groups
 \$96
 \$6
 8 tickets
 150 stickers
 450 pennies
 160 problems

LESSON 41 Practice

A 36 problems
 140 words
 5 days
 6 cents
 14 cookies
 132 dimes
 4 weeks
 \$9
 4 apples
 \$18
 120 stickers
 \$70

LESSON 42 Order of Operations

A 25 13
B 8 -36
 -26 -15
 24
 10

LESSON 42 Practice

A 45 -24
 -75 -30
 10 -6
 8 -3
 -2 19
 52
 -2
 -8
B 18 2
 3 4

FACTORS AND MULTIPLES

LESSON 43 Prime Numbers

- A**
- | |
|------------------|
| no |
| 1, 5 yes |
| 1, 2, 4, 8 no |
| 1, 3, 9 no |

B

	O	O		O	O	O	
O	O		O	O			O
	O	O		O		O	

- C**
- | | |
|-----|-----|
| yes | no |
| no | yes |
| no | no |
| yes | yes |
| yes | no |

LESSON 43 Practice

A

O	O	O			O		O
		O	O	O		O	O

- B**
- | | |
|-----|-----|
| no | Yes |
| yes | no |
| no | yes |
| yes | no |
| yes | no |
| no | yes |

LESSON 44 Recognizing Prime Numbers

A Answers will vary.

- B**
- prime
 - prime
 - composite $7 \times 11 = 77$
 - composite $7 \times 7 = 49$
 - prime
 - prime
 - composite $3 \times 23 = 69$
 - prime
 - composite $3 \times 25 = 75, 5 \times 15 = 75$
 - prime

LESSON 44 Practice

A

	2	3		5		7		
11		13				17		19
		23						29
31						37		
41		43				47		
		53						59
61						67		
71		73						79
		83						89
						97		

LESSON 45 Divisibility Rules

C

2, 3, 4, 6	2, 3, 6, 9	2, 4, 5, 10
2, 3, 4, 6	2, 3, 5, 6, 10	2, 3, 4, 6, 9
3, 5, 9	2, 3, 4, 6, 9	2, 3, 5, 6, 9, 10
2, 3, 4, 5, 6, 9, 10	2, 5, 10	2, 4, 5, 10

LESSON 45 Practice

A

2, 4	3, 5, 9	2, 3, 4, 6, 9
2, 3, 4, 5, 6, 10	2, 3, 4, 6	2, 4, 5, 10
2, 5, 10	3, 5	2, 3, 4, 5, 6, 9, 10
3, 9	2, 3, 5, 6, 10	2, 3, 6, 9

B

	O					O	O
O			O		O		

C

	O			O	O		
	O		O				O

LESSON 46 Finding Factor Pairs

B 1×16	1×55	1×63	1×21
2×8	5×11	3×21	3×7
4×4		7×9	
1×30	1×88	1×92	1×70
2×15	2×44	2×46	2×35
3×10	4×22	4×23	5×14
5×6	8×11		7×10
1×80	1×56	1×48	1×64
2×40	2×28	2×24	2×32
4×20	4×14	3×16	4×16
5×16	7×8	4×12	8×8
8×10		6×8	

LESSON 46 Practice

B 1×18	1×49	1×32	1×54
2×9	7×7	2×16	2×27
3×6		4×8	3×18
			6×9
1×66	1×75	1×40	1×98
2×33	3×25	2×20	2×49
3×22	5×15	4×10	7×14
6×11		5×8	
1×52	1×42	1×28	1×24
2×26	2×21	2×14	2×12
4×13	3×14	4×7	3×8
	6×7		4×6
1×90	1×60	1×72	1×84
2×45	2×30	2×36	2×42
3×30	3×20	3×24	3×28
5×18	4×15	4×18	4×21
6×15	5×12	6×12	6×14
9×10	6×10	8×9	7×12

LESSON 47 Finding Factors**A** 4, 5**B** 1, 2, 3, 4, 6, 8, 12, 24

1, 3, 7, 9, 21, 63

1, 2, 4, 19, 38, 76

1, 2, 4, 5, 8, 10, 20, 40

1, 2, 4, 5, 10, 20, 25, 50, 100

1, 2, 4, 5, 7, 10, 14, 20, 28, 35, 70, 140

1, 2, 3, 5, 6, 10, 15, 25, 30, 50, 75, 150

C 64

12

33

LESSON 47 Practice**A** 1, 3

1, 13

1, 2, 3, 6

1, 3, 5, 15

1, 2, 4, 8

1, 2, 4, 8, 16

1, 3, 9

1, 2, 3, 6, 9, 18

1, 2, 5, 10

1, 2, 4, 5, 10, 20

1, 2, 4, 7, 8, 14, 28, 56

1, 2, 3, 5, 6, 10, 15, 30

1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96

1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84

1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

B

2	5	3	7	9	8
3	4	5	6	4	7

8	8	4	8	0	5
6	3	1	5	8	7

LESSON 48 Prime Factorization**B** $70 = 2 \times 5 \times 7$ $45 = 3 \times 3 \times 5$ $88 = 2 \times 2 \times 2 \times 11$ $78 = 2 \times 3 \times 13$ $525 = 3 \times 5 \times 5 \times 7$ $612 = 2 \times 2 \times 3 \times 3 \times 17$ $126 = 2 \times 3 \times 3 \times 7$ $440 = 2 \times 2 \times 2 \times 5 \times 11$

LESSON 48 Practice

A $35 = 5 \times 7$
 $18 = 2 \times 3 \times 3$
 $52 = 2 \times 2 \times 13$
 $66 = 2 \times 3 \times 11$

$44 = 2 \times 2 \times 11$
 $75 = 3 \times 5 \times 5$
 $85 = 5 \times 17$
 $60 = 2 \times 2 \times 3 \times 5$

$546 = 2 \times 3 \times 7 \times 13$
 $245 = 5 \times 7 \times 7$
 $375 = 3 \times 5 \times 5 \times 5$
 $510 = 2 \times 3 \times 5 \times 17$

$924 = 2 \times 2 \times 3 \times 7 \times 11$
 $882 = 2 \times 3 \times 3 \times 7 \times 7$
 $294 = 2 \times 3 \times 7 \times 7$
 $780 = 2 \times 2 \times 3 \times 5 \times 13$

LESSON 49 Least Common Multiple

A 8, 16, 24, 32, 40, 48, 56, ...
LCM(6, 8) = 24

B

12	18	40
77	60	42
48	50	54

LESSON 49 Practice

A

35	9	52
24	42	28
51	80	84
176	30	220
105	221	108
240	210	300

LESSON 50 Greatest Common Divisor

A 1, 2, 3, 4, 6, 9, 12, 18, 36
GCD(24, 36) = 12

B

2	3	1
2	4	3
6	7	10

3 minutes.

LESSON 50 Practice

A

2	2	3
5	3	2
3	7	4
5	21	4
4	7	14
5	1	15

LESSON 51 Word Problems: LCMs and ...

B 12 days
4 inches
11:50 a.m.

LESSON 51 Practice

A 24 minutes
12 tiles (6-inch tiles)
3 turns (120 teeth turns)
2020
2 peaches (7 baskets)
150 customers
3 cookies (12 bags)
7 girls (5 groups)

LESSON 52 Fundamental Theorem of ...

B $180 = 2 \times 2 \times 3 \times 3 \times 5$
 $484 = 2 \times 2 \times 11 \times 11$
 $924 = 2 \times 2 \times 3 \times 7 \times 11$

$585 = 3 \times 3 \times 5 \times 13$
 $882 = 2 \times 3 \times 3 \times 7 \times 7$
 $630 = 2 \times 3 \times 3 \times 5 \times 7$

C

5	15
5	7

LESSON 52 Practice

A $126 = 2 \times 3 \times 3 \times 7$
 $140 = 2 \times 2 \times 5 \times 7$
 $351 = 3 \times 3 \times 3 \times 13$

 $975 = 3 \times 5 \times 5 \times 13$
 $308 = 2 \times 2 \times 7 \times 11$
 $665 = 5 \times 7 \times 19$

 $243 = 3 \times 3 \times 3 \times 3 \times 3$
 $200 = 2 \times 2 \times 2 \times 5 \times 5$
 $726 = 2 \times 3 \times 11 \times 11$

B 5 10
3 11
1 14

FRACTIONS

LESSON 53 Identifying Numerators ...

- A** $5/7$
B 2, 3 1, 7
4, 5 3, 8
C $3/5, 3$ $2/6, 6$
6/9, 6 8/10, 10
D $11/18$
7/17

LESSON 53 Practice

- A** $2/3, 2$ $9/12, 12$
3/8, 3 4/6, 6
4/5, 4 $1/2, 2$
B $2/3$
1/5
5/9
3/18
6/30
99/100
60/120
13/32

LESSON 54 Identifying Fraction Parts

- A** $3/8$
 $2/5$
 $9/10$
 $3/18$
 $7/15$
 $9/16$
C $2/3$ $5/6$ three tenths
 $5/2$ $6/8$ one seventh
 $1/4$ $4/5$ two ninths

LESSON 54 Practice

- A** $5/9, 5$ $2/3, 3$
 $1/4, 1$ $3/5, 5$
B $1/3$ $2/6$ $7/5$
 $2/2$ $3/4$ $15/10$
C $1/2$ one half
 $2/5$ two fifths
 $4/7$ four sevenths
 $3/4$ three fourths
 $5/9$ five ninths

LESSON 55 Equivalent Fractions

- A** 2 4
B $4 \times 5, 15$ $6 \div 6, 3$
C 4 9 10 12
 3 9 24 6
 18 3 5 25
D Answers will vary.

LESSON 55 Practice

- A** 6 1 2 1
 4 2 2 9
B 1 28 1 9
 72 2 4 30
 3 90 24 7
C 24/48
 75/100
 4/20

LESSON 56 Word Problems: ...

- A** \$10
B \$9
 \$8
 13 candies
 12 apples
 14 feet
 44 stamps

LESSON 56 Practice

- A** 10/15
 9/18
 12/20
 77/33
 80/50
B

	O		O		O		O
O		O	O	O		O	
O		O	O		O		O

C \$5, 15/20
 50 minutes, 15 minutes

LESSON 57 Comparing Fractions

- A** < >
B < >
C $4/7 > 3/7$
D > > =
 = < >
 < > >

LESSON 57 Practice

- A** 6 8 15 12
 6 12 14 12
B > = <
 < > >
 < < =
 < < >
 > = =

LESSON 58 Simplifying Fractions

- A** 5/7
B 7, 7 2, 2 1/5
C 8/11 3/4 3/5
 5/9 9/7 1/3
 2/9
 7/9

LESSON 58 Practice

- A** 4/9 5/7 4/5
 3/5 4/9 7/8
 3/10 7/8 3/4
 1/4 5/9 1/3
 1/6 2/7 3/5
 2/7
 8/25
 5/16

LESSON 59 Comparing Fractions

- A** $6 < 8$
 $25 < 36$
B $18 < 24$
C < > <
 < < >
 = > >

LESSON 59 Practice

A > = <
 = < =
 > > >
 = < >
 < > >
 > > =

LESSON 60 Ordering Fractions

A 1, 2, 4, 7, 9
 B 45, 28, 25 $5/12 < 7/15 < 3/4 < 5/6$
 C $2/5, 1/2, 5/6$ $1/2, 5/8, 3/4$
 $2/9, 1/4, 1/3$ $1/3, 3/7, 5/6$
 $4/10, 1/2, 3/5$ $5/18, 4/9, 7/12$

LESSON 60 Practice

A $1/9, 5/9, 8/9$ $2/7, 2/5, 2/4$
 $1/2, 4/7, 5/8$ $1/3, 1/2, 4/5$
 $5/9, 2/3, 3/4$ $1/4, 3/8, 5/7$
 $1/4, 2/6, 3/8$ $5/12, 4/9, 2/3$
 $23/30, 4/5, 5/6$ $11/20, 3/5, 13/15$
 $10/18, 7/12, 3/4$ $7/9, 13/15, 11/12$

LESSON 61 Types of Fractions

C $15/7$ $9/4$ $1/15$ $2/11$

D P I P I
 I M M P
 M P I M

E O | | O | O | | O | | O

'1' is most frequent and '0' is least frequent.

LESSON 61 Practice

A

	O			O	O		O
O			O		O		O

B

O			O		O	O	
O	O			O			O

C

	O		O	O		O	
O				O	O		O

D $9/36$ $1/23$ $6/10$ $12/14$
 $16/8$ $7/21$ $1/17$ $42/9$

$8 (7 \times 7 = 49, 4 \times 9 = 36, 3 \times 6 = 18, 1 \times 8 = 8)$

LESSON 62 Mixed Numbers to ...

B 17

C 17

D $21/5$ $19/8$ $17/3$
 $25/7$ $7/2$ $47/6$
 $23/4$ $49/9$ $23/10$

LESSON 62 Practice

A $29/4$ $33/7$ $28/3$
 $52/6$ $11/2$ $47/8$
 $34/9$ $7/5$ $69/7$
 $33/5$ $51/10$ $40/11$
 $19/9$ $77/20$
 $37/8$ $95/16$
 $23/3$ $122/25$
 $39/4$ $131/15$

LESSON 63 Improper Fractions to ...

A 2

B 2

C $2 \frac{2}{7}$ $6 \frac{1}{2}$ $7 \frac{4}{5}$
 $7 \frac{3}{6}$ $3 \frac{6}{8}$ $15 \frac{1}{3}$
 $6 \frac{3}{4}$ $5 \frac{7}{9}$ $3 \frac{7}{10}$
 $12 \frac{5}{12}$
 $13 \frac{3}{35}$

LESSON 63 Practice

A $9 \frac{1}{4}$ $11 \frac{1}{2}$ $5 \frac{2}{8}$
 $5 \frac{3}{9}$ $7 \frac{2}{7}$ $4 \frac{2}{5}$
 $21 \frac{1}{3}$ $6 \frac{3}{6}$ $10 \frac{3}{4}$
 $3 \frac{5}{7}$ $1 \frac{7}{12}$ $1 \frac{14}{16}$
 $3 \frac{5}{8}$ $6 \frac{11}{15}$
 $8 \frac{1}{2}$ $12 \frac{19}{25}$
 $8 \frac{3}{5}$ $23 \frac{15}{20}$
 $8 \frac{8}{9}$ $14 \frac{8}{16}$

LESSON 64 Comparing Mixed Numbers

A > >
 > >

B < $7 < 9$ $35 < 36$

C < = <
 > = <
 > > >

LESSON 64 Practice

A > < <
 < > <
 < < >
 = > <
 > > >
 < < =

LESSON 65 Comparing Mixed and ...

A < $9 < 17$ $27 < 34$
B > $1 > 1$ $1 > 1$
C > > =
 < < >
 < = >
 = < >

LESSON 65 Practice

A < > =
 > < >
 > = <
 < > >
 = < <
 > > =

LESSON 66 Adding Fractions with Like ...

A 6, 2
B 1 $\frac{4}{5}$
 $1\frac{1}{4}$ $1\frac{1}{6}$
 $1\frac{1}{2}$ $1\frac{1}{12}$
 $1\frac{1}{3}$ $1\frac{1}{2}$
 $1\frac{1}{5}$ $\frac{5}{6}$
 $1\frac{1}{4}$
 $2\frac{2}{15}$

LESSON 66 Practice

A $1\frac{2}{3}$ $\frac{3}{4}$
 $1\frac{1}{3}$ $1\frac{1}{3}$
 $\frac{1}{2}$ $1\frac{8}{11}$
 $\frac{12}{7}$ $\frac{6}{7}$
 $1\frac{1}{3}$ $\frac{2}{3}$
 $1\frac{1}{2}$ $1\frac{1}{12}$
 1 $1\frac{1}{4}$
 $1\frac{2}{3}$ $1\frac{2}{5}$

LESSON 67 Subtracting Fractions with ...

A 3, 1
B $\frac{1}{3}$ $\frac{4}{5}$
 $\frac{2}{5}$ $\frac{1}{3}$
 $\frac{2}{7}$ $\frac{3}{5}$
 $\frac{1}{3}$ $\frac{1}{3}$
 0 $\frac{5}{12}$
 $\frac{1}{2}$ $\frac{4}{15}$
 $\frac{1}{2}$ $\frac{1}{3}$

LESSON 67 Practice

A $\frac{5}{9}$ $\frac{1}{4}$
 $\frac{1}{2}$ $\frac{3}{5}$
 $\frac{1}{4}$ $\frac{1}{2}$
 $\frac{1}{5}$ $\frac{1}{2}$
 $\frac{5}{7}$ $\frac{3}{8}$
 $\frac{1}{2}$ $\frac{3}{5}$
 $\frac{1}{3}$ $\frac{5}{11}$
 0 $\frac{1}{4}$

LESSON 68 Finding the Least Common ...

A 12, 24, 18, 30, 48
B See Day 49, Part B and C.
 The LCM of 9 and 12 = 36
C 24 36 21
 10 24 45
 112 60 75
 168 180 192

LESSON 68 Practice

C 6 18 56
 20 36 66
 60 39 126
 110 42 330
 378 175 160
 392 108 528

LESSON 69 Finding Common ...

B 8 & 7 16 & 14 40 & 35
C 10 & 8
D $\frac{28}{36}, \frac{27}{36}$ $\frac{14}{30}, \frac{9}{30}$
 $\frac{15}{40}, \frac{10}{40}$ $\frac{15}{48}, \frac{18}{48}$
 $\frac{35}{42}, \frac{20}{42}$ $\frac{55}{60}, \frac{26}{60}$

LESSON 69 Practice

A Answers will vary.**B** 14/21, 18/21 21/36, 22/36
9/36, 10/36 45/70, 26/70
35/30, 18/30 32/54, 37/54
64/144, 45/144 80/84, 45/84**LESSON 70** Adding Fractions with ...

A 25, 21 46 1
B 2, 4 10, 12 22 7
C 1 2/9 1 2/3
1 5/14 1 1/2
1 5/12 1 1/3
1 3/8 1 3/4**LESSON 70** Practice

A 5/6 19/20
1 3/8 1 7/15
11/12 24/35
1 2/9 5/6
19/21 17/18
1 7/24 1 1/14**LESSON 71** Subtracting Fractions with ...

A 49, 35 14 1/5
B 4, 3 28, 15 13
C 7/15 1/15
1/14 11/48
1/4 11/21
13/30 2/5**LESSON 71** Practice

A 1/6 17/30
1/3 19/48
3/10 11/18
7/24 1/20
11/20 4/49
1/18 1/10**LESSON 72** Adding and Subtracting ...

A -11, -15
B 10, -9 19 4
-16, 5 -21 -7 7
C -7/12 7/10
2/3 -4/9
5/12 -1 11/20**LESSON 72** Practice

A -7/8 1 1/4
-5/12 4/15
-3/20 -1 5/42
-1 5/21 -1/21
1 13/18 -4/9
-1/4 -1/15**LESSON 73** Word Problems: Fractions

A Yesterday
Chris
Tuesday
11/15 of the pizza
4/9 of the bottle
3/4 of the book
9/40 of the allowance
5/36 of the homework
1/12 of the box
1/2 of the carton
1/10 of the room
1/4 cup of flour**LESSON 73** Practice

A Laura
Ron
Matt
3/5 of the books
5/12 of the bottle
1/6 cup of flour
3/10 of the pizza
11/15 of the field
11/20 of the room
8/9 of the bucket
1/24 of the book
5/9 of the money

LESSON 74 Adding and Subtracting ...

- A** 9, 8 27, 16 43 7
B 49, 5 49, 15 34 7
C $4\frac{5}{12}$ $2\frac{1}{14}$
 $3\frac{17}{30}$ $2\frac{11}{30}$
 $6\frac{1}{3}$ $13/18$
 $4\frac{13}{24}$ $1\frac{2}{5}$

LESSON 74 Practice

- A** $6\frac{2}{5}$ $3\frac{1}{3}$
 $4\frac{1}{9}$ $1\frac{1}{12}$
 $10\frac{1}{4}$ $3\frac{1}{9}$
 $7\frac{1}{10}$ $1\frac{1}{2}$
6 $\frac{7}{8}$
 $5\frac{1}{15}$ $3\frac{7}{10}$

LESSON 75 Fractions on a Number Line

- A** $\frac{3}{4}$
 $\frac{1}{6}$ $\frac{1}{2}$ $\frac{2}{3}$
 $\frac{1}{8}$ $\frac{3}{8}$ $\frac{3}{4}$ $\frac{7}{8}$
B E A H C
D F B G
C $\frac{1}{3}$ $\frac{4}{5}$ $\frac{1}{15}$ $\frac{8}{15}$
 $\frac{2}{5}$ $\frac{1}{5}$ $\frac{2}{3}$ $\frac{14}{15}$

LESSON 75 Practice

- A** From left to right:
 $\frac{1}{8}$ $\frac{1}{2}$ $\frac{3}{4}$ $\frac{7}{8}$
 $\frac{1}{10}$ $\frac{1}{5}$ $\frac{3}{5}$ $\frac{9}{10}$
 $\frac{1}{9}$ $\frac{1}{3}$ $\frac{4}{9}$ $\frac{2}{3}$
 $\frac{3}{20}$ $\frac{3}{10}$ $\frac{7}{10}$ $\frac{4}{5}$
 $\frac{2}{9}$ $\frac{1}{2}$ $\frac{2}{3}$ $\frac{5}{6}$
 $\frac{1}{12}$ $\frac{3}{8}$ $\frac{2}{3}$ $\frac{5}{6}$
B $\frac{1}{3}$ $\frac{1}{9}$ $\frac{1}{2}$ $\frac{5}{6}$
 $\frac{8}{9}$ $\frac{1}{6}$ $\frac{2}{3}$ $\frac{4}{9}$

LESSON 76 Fractions on a Number Line

- A** Above: $\frac{8}{2}$ $\frac{11}{2}$
Below: $4\frac{1}{2}$ $5\frac{1}{2}$ 6
Above: $\frac{16}{3}$ $\frac{17}{3}$ $\frac{19}{3}$ $\frac{21}{3}$
Below: $5\frac{1}{3}$ $6\frac{2}{3}$
Above: $\frac{37}{4}$ $\frac{40}{4}$ $\frac{42}{4}$ $\frac{43}{4}$
Below: $9\frac{3}{4}$ $10\frac{1}{4}$ $10\frac{1}{2}$ 11
B $5\frac{1}{2}$, $\frac{11}{2}$ $6\frac{1}{3}$, $\frac{19}{3}$ $4\frac{1}{3}$, $\frac{13}{3}$
 $4\frac{2}{3}$, $\frac{14}{3}$ $5\frac{5}{6}$, $\frac{35}{6}$ $5\frac{1}{6}$, $\frac{31}{6}$

I have 3 treat bags and 4 apples.

LESSON 76 Practice

- A** $\frac{13}{4}$, $\frac{7}{4}$ $\frac{31}{4}$, $\frac{13}{4}$ $4\frac{1}{2}$, $\frac{9}{2}$
 $5\frac{1}{3}$, $\frac{16}{3}$ $6\frac{1}{2}$, $\frac{13}{2}$ $7\frac{1}{6}$, $\frac{43}{6}$
 $2\frac{1}{2}$, $\frac{5}{2}$ $3\frac{1}{5}$, $\frac{16}{5}$ $4\frac{9}{10}$, $\frac{49}{10}$
B $\frac{18}{7}$ $\frac{31}{6}$ $\frac{73}{5}$
 $\frac{16}{5}$ $\frac{53}{8}$ $\frac{55}{7}$
 $\frac{26}{3}$ $\frac{43}{9}$ $9\frac{7}{8}$

LESSON 77 Negative Fractions on a ...

- A** $-\frac{3}{4}$ $\frac{1}{2}$
 $-\frac{1}{3}$ 0 $\frac{2}{3}$
 $-1\frac{1}{2}$ $-\frac{1}{2}$ 2
B C D G B
F E A H
C $-\frac{1}{2}$, $-\frac{1}{3}$, $\frac{2}{3}$ $-\frac{4}{2}$, $-1\frac{2}{3}$, $-\frac{1}{8}$
 $-\frac{3}{4}$, $-\frac{1}{6}$, $\frac{5}{8}$ $-1\frac{1}{2}$, $-\frac{3}{4}$, $-\frac{1}{5}$

LESSON 77 Practice

- A** From left to right:
 $-\frac{3}{4}$ $-\frac{1}{4}$ $\frac{3}{4}$
 $-\frac{9}{5}$ $-\frac{6}{5}$ $-\frac{3}{5}$
 $-4\frac{2}{3}$ $-\frac{10}{3}$ $-\frac{7}{3}$
 $-\frac{11}{4}$ $-\frac{5}{2}$ $-\frac{10}{8}$
 $-\frac{5}{2}$ $-\frac{4}{6}$ $\frac{9}{18}$
 $-8\frac{5}{9}$ $-\frac{23}{3}$ $-7\frac{2}{9}$
B G E A F
C H B D

LESSON 78 Adding and Subtracting ...

- B** 7, 4 3 1
C $8\frac{2}{3}$ $1\frac{2}{3}$
 $9\frac{1}{5}$ $6\frac{1}{2}$
 $8\frac{2}{7}$ $3\frac{1}{3}$
 $10\frac{1}{6}$ $2\frac{3}{5}$

LESSON 78 Practice

- A** 10 $2\frac{1}{2}$
 $5\frac{3}{8}$ $3\frac{2}{3}$
 $8\frac{1}{2}$ 6
 $7\frac{1}{3}$ $1\frac{3}{7}$
 $5\frac{5}{7}$ $2\frac{1}{4}$
 $8\frac{1}{4}$ $2\frac{1}{3}$

LESSON 79 Adding and Subtracting ...

- A** 15, 16 15, 16 31 11
B 8, 3 8, 3 5
C $6\frac{7}{18}$ $2\frac{7}{15}$
 $9\frac{5}{6}$ $4\frac{2}{9}$
 $8\frac{5}{12}$ $6\frac{1}{18}$
 $7\frac{3}{8}$ $17\frac{1}{24}$

LESSON 79 Practice

- A** $8\frac{1}{6}$ $3\frac{1}{6}$
 $8\frac{3}{8}$ $6\frac{7}{18}$
 $5\frac{7}{12}$ $3\frac{3}{10}$
 $8\frac{17}{18}$ $5\frac{7}{24}$
 $7\frac{5}{12}$ $4\frac{1}{4}$
 $4\frac{7}{24}$ $6\frac{2}{9}$

LESSON 80 Word Problems: Mixed ...

- A** $6\frac{1}{4}$ miles
 $3\frac{1}{2}$ feet
 $6\frac{1}{2}$ gallons
 $15\frac{3}{10}$ pounds
 $3\frac{1}{4}$ hours
 $8\frac{1}{3}$ years old
 $2\frac{7}{16}$ inches
 $13\frac{7}{8}$ rows
 $1\frac{1}{5}$ pounds
 $5\frac{1}{4}$ miles
 $7\frac{1}{2}$ pounds

LESSON 80 Practice

- A** $2\frac{1}{4}$ miles
 $3\frac{11}{12}$ cups
 $3\frac{3}{5}$ gallons
 $16\frac{5}{6}$ years old
 $5\frac{7}{8}$ inches
 $4\frac{1}{4}$ pizzas
 $3\frac{5}{6}$ cups
 $10\frac{1}{6}$ baskets
 $6\frac{2}{9}$ loaves
 $8\frac{7}{10}$ rows
 $8\frac{1}{4}$ pounds

LESSON 81 Multiplying Fractions

- A** 20, 5
B 5, 2
C $\frac{2}{5}$ $\frac{3}{5}$
 $\frac{1}{12}$ $\frac{1}{8}$
 $\frac{1}{3}$ $\frac{4}{9}$

LESSON 81 Practice

- A** $\frac{1}{6}$ $\frac{1}{22}$
 $\frac{3}{7}$ $\frac{1}{4}$
 $\frac{1}{4}$ $\frac{2}{5}$
 $\frac{5}{27}$ $\frac{1}{24}$
 $\frac{3}{20}$ $\frac{5}{8}$
 $\frac{1}{2}$ $\frac{9}{40}$

LESSON 82 Multiplying Mixed Numbers

- A** 56, 2
B $1\frac{2}{3}$ 5
 $4\frac{1}{8}$ $2\frac{3}{7}$
 8 $2\frac{4}{5}$
 $26\frac{2}{3}$ $7\frac{1}{5}$
 14 $3\frac{6}{7}$

LESSON 82 Practice

- A** $4\frac{1}{2}$ $5\frac{2}{3}$
 $3\frac{2}{5}$ $5\frac{5}{12}$
 $7\frac{1}{5}$ 5
 4 $11\frac{1}{7}$
 $3\frac{1}{2}$ $2\frac{1}{4}$
 $5\frac{1}{2}$ $7\frac{7}{8}$

LESSON 83 Multiplying Fractions and ...

- A** 100, 1
- B** $1\frac{1}{2}$ $5\frac{1}{3}$
 $2\frac{4}{5}$ $3\frac{3}{4}$
 $3\frac{1}{3}$ $45\frac{1}{3}$
 $5\frac{1}{3}$ 25
 $1\frac{1}{2}$ $27\frac{1}{2}$

LESSON 83 Practice

- A** 2 $6\frac{2}{3}$
 $1\frac{1}{2}$ $9\frac{4}{5}$
 $4\frac{1}{2}$ 26
 $6\frac{2}{3}$ $16\frac{2}{3}$
5 $11\frac{1}{3}$
 $5\frac{4}{9}$ $12\frac{9}{10}$

LESSON 84 Word Problems: Multiplying ...

- A** 9 dots, 4
- B** Tylor
1 $\frac{7}{10}$ hours
 $\frac{2}{5}$ of the students
 $\frac{11}{12}$ pizza
Sandy
6 gallons of water
10 pounds of potatoes

LESSON 84 Practice

- A** Lisa
 $\frac{2}{15}$ of the pets
 $\frac{5}{14}$ of the money
5 problems
55 miles
 $\frac{1}{8}$ of the allowance
2 problems
 $4\frac{3}{8}$ cups of sugar
175 goldfish
 $2\frac{2}{5}$ gallons of paint

LESSON 85 Dividing Fractions

- A** 10, 1
- B** 1
99, 1
- C** $1\frac{1}{9}$ $1\frac{1}{4}$
 $9\frac{1}{3}$ $16\frac{1}{3}$
 $\frac{1}{15}$ $\frac{1}{49}$

LESSON 85 Practice

- A** $2\frac{2}{3}$ $1\frac{1}{7}$
 $\frac{3}{5}$ $1\frac{4}{5}$
 $4\frac{1}{2}$ 12
7 $31\frac{1}{4}$
 $\frac{1}{15}$ $\frac{1}{60}$
 $\frac{2}{7}$ $\frac{1}{81}$

LESSON 86 Word Problems: Dividing ...

- C** 8 sessions
30 pieces
 $1\frac{5}{8}$ gallons of milk
 $4\frac{1}{2}$ miles
25 problems
 $1\frac{1}{10}$ gallons of paint

2,520

LESSON 86 Practice

- A** 18 pages
 $\frac{9}{10}$ cups
 $\frac{1}{4}$ of the cake
185 miles
6 pies
 $\frac{11}{16}$ cans of paint
12 laps
34 cups
 $\frac{3}{14}$ of the field
36 tiles
 $6\frac{7}{8}$ cups of vegetables

LESSON 87 Reciprocal of a Mixed ...

- A** $12/7$ $1/18$ $9/20$ 45
B $2/7$ $5/21$ $5/18$ $10/17$
 $7/44$ $9/13$ $6/17$ $15/49$
C $6/17$ 18 $2\ 9/13$ $1/16$
 $1/20$ $4/21$ 30 $2\ 3/11$
D $1/5$
 $4/10$
 $2/7$
 $13/25$

LESSON 87 Practice

- A** 25 $10/27$ $1/40$ $2\ 1/12$
 $1/26$ $13/45$ 23 $7/37$
 $3/11$ 48 $1\ 11/21$ $1/52$
 $3\ 4/15$ $1/35$ $8/31$ 19
B $2\ 1/6$
 $11/30$
 $25/10$
 $6/8$
 $12/9$
 $10/13$
 $2/3$

LESSON 88 Dividing Mixed Numbers

- A** $27, 11$
C $4/5$ $-3\ 3/4$
 $1\ 1/7$ $-4/9$
 $1\ 1/6$ $3\ 1/5$

LESSON 88 Practice

- A** $12/25$ $16/27$
 $27/35$ $3\ 1/3$
 $3\ 1/8$ $4\ 1/12$
 $-2\ 17/30$ $1\ 1/2$
 $-1\ 1/3$ $-4\ 8/9$
 $-1\ 5/6$ $9/14$

FRACTIONS, DECIMALS, AND PERCENTS**LESSON 89** Decimal Place Value

- A** $1\ 0\ 3\ 2\ .\ 4\ 9\ 7$
C tenths tens hundredths
ones tenths thousandths
D = seventy and thirty-five hundredths
= two hundred seventeen thousandths

LESSON 89 Practice

- A** 71.435 520.84 $6,349.2$ 46.328
B tens tenths thousandths
tenths ones hundredths
C = two hundred fifteen and four tenths
= six hundred thirty-nine thousandths
= nine thousand, fifteen and two hundredths
D 1.1
 90.9
 8.42

LESSON 90 Decimals on a Number Line

- A** 1.3 1.6 1.9
 1.42 1.44 1.47 1.49
 1.451 1.453 1.456 1.458
B 4.2 5.6 5.3 4.7
 2.77 2.88 2.82 2.73
 5.122 5.134 5.137 5.126

LESSON 90 Practice

- A** 6.1 6.5 6.7 6.9
 6.32 6.34 6.36 6.39
 6.371 6.373 6.376 6.378
B 0.3 1.6 0.8 1.2
 0.27 0.12 0.15 0.24
 0.084 0.073 0.076 0.087

Never.

LESSON 91 Rounding Decimals

- A** 8.55
- B** 9 8.5 8.55
- C** 7 6.8 6.77
- 2 2.2 2.2
- 18 18.4 18.4
- 64 64.1 64.06
- 820 819.5 819.54
- 231 230.6 230.61
- 1,378 1,378 1,378

LESSON 91 Practice

- A** 0 2 2
- 20 43 25
- 354 180 961
- B** 0.1 5 1.8
- 24.4 13.3 80.2
- 569.7 295 343.6
- C** 0.01 2.14 5.71
- 0.05 36.76 23.09
- 0.97 120.02 458.4
- D** 4.94
- 7.09
- 5.02

LESSON 92 Estimation with Decimals

- A** \$65
- B** 15 6
- 18 2
- 155 57
- 65 23
- C** \$8
- \$36
- 6 inches
- 5 inches
- 40 km/h

LESSON 92 Practice

- A** 14 10
- 44 66
- 76 80
- B** 4 4
- 24 19
- 25 48
- C** \$11
- \$36
- 1 inch
- 9 gallons
- 1 mile
- \$32
- 18 km/s

LESSON 93 Comparing Decimals

- B** >
- C** > > >
- < < =
- = > <
- D** 2.9, 5.8, 6.2, 9.3 1.2, 3.9, 4.75, 4.78
- 0.02, 0.576, 1.576, 3.2 2.495, 2.67, 47.12, 80.3
- 0.823, 0.85, 1.8, 1.845 0.506, 2.37, 5.02, 5.109

LESSON 93 Practice

- A** < < >
- > < =
- > = <
- B** 5.82, 7.5, 8.12, 8.13 0.03, 0.3, 0.37, 0.73
- 0.113, 6.25, 8.4, 12.01 5.273, 5.279, 9.2, 10.2
- C** 2.58, 2.5, 2.2, 2.15 4.87, 4.82, 4.75, 4.25
- 4.827, 4.8, 3.72, 3.146 5.84, 5.203, 2.37, 2.1
- D** 0.157 0.049 0.006

LESSON 94 Adding Decimals

- B** 1.4 3.2
- 11.9 11.3
- 14.8 5.1
- 15.6 1
- C** 3.78 7.95 11.55 4.32 1.7
- 6.218 3.159 12.113 14.181 12

LESSON 94 Practice

- A** 9.6 9.5
4.2 10
14.2 1.4
10.3 10.9
- B** 7.03 11.32 7.39 11.75 5.31
11.407 3.009 9.748 18.213 0.802
16.782 12.115 10.039 3.503 10

LESSON 95 Adding Decimals

- C** 59.3 95.027
85.8 82.353
55.54 60
88.49 92.564
33.203 44.528

LESSON 95 Practice

- A** 62.99 70.884
84.9 154.104
134.89 137.43
81.94 42.343
41.905 31.305
86.052 86.375
15.02 109.989

LESSON 96 Adding Decimals

- A** 1.55 23.98
- B**
- | | | | | | | | | | |
|---|---|---|---|---|---|---|--|---|--|
| 4 | 5 | 9 | 2 | | | | | | |
| 9 | | | | | | | | | |
| 2 | | | | | | | | | |
| 8 | 0 | 5 | 8 | | | | | 3 | |
| | | | 9 | | | | | 0 | |
| 5 | 2 | 3 | 4 | | | | | 3 | |
| | | | 2 | 7 | 0 | 5 | | | |
- 2.705
303.5
45.92
5.234
59.42
8.058
492.8

LESSON 96 Practice

- A** \$5.47 \$5.86 \$8.18 \$7.67
£12.72 €14.06 ¥11.64 ₹9.83
- B** 69.38 100.213
126.5 87.274
153.13 106.45
80.93 32.309

LESSON 97 Subtracting Decimals

- B** 0.7 10.3
2.1 24.5
3.6 72
- C** 2.92 1.56 3.48 5.42 0.86
2.561 1.891 4.243 0.737 3.416

A decimal point.

LESSON 97 Practice

- A** 2 30.4
1.7 14.6
1.6 57
3.8 56.6
- B** 0.17 1.92 3.56 1.48 7.63
5.407 0.671 3.513 1.477 0.397
2.226 5.505 0.682 5.533 0.054

LESSON 98 Subtracting Decimals

- A** \$2.47
\$8.01
\$7.13
\$14.60
- B** 26.7 35.827
27.8 22.647
18.46 12.22
42.49 75.496
25.897 33.985

LESSON 98 Practice

- A** \$6.01
\$10.75
\$2.57
\$4.10
- B** 46.01 29.284
54.9 35.596
46.11 65.47
27.94 36.637
56.095 42.362

LESSON 99 Word Problems: Adding ...

- A** 6.3 gallons
 \$6.88
 \$64.84
 1.3 miles
 \$12.11
 \$31.23
 0.9 inch
 39.92 inches
 3.6° F
 8.1 kg
 29.5 miles
 0.196 km

LESSON 99 Practice

- A** \$30.11
 \$1.63
 5.2 inches
 5.4 gallons
 6.35 miles
 \$38.54
 \$37.32
 19.33 square feet
 6.44° F
 99.06 cm
 25.84 km/h
 71 minutes

LESSON 100 Multiplying Decimals by ...

- | | | | | |
|----------|--------|-------|------|-------|
| B | 425 | 32.7 | 0.69 | 0.083 |
| | 4,250 | 327 | 6.9 | 0.83 |
| | 42,500 | 3,270 | 69 | 8.3 |
- C** 21.4 0.2
 5,080 3,404
 27.46 67,120
 6,280 5,420.3
- D** 10^2 0.038
 10 0.973
 10^2 0.092

LESSON 100 Practice

- A** 10 1,000,000
 10,000 1,000,000,000
- B** 0.762 4,990
 7.62 5,816
 76.2 3,290
 762 5.73
 7,620 4,000
- C** 10 0.638
 10^6 0.42
 10^2 0.974
- D** 2.4×10^5
 7×10^9
 2.7×10^7

LESSON 101 Multiplying Decimals

- | | | | | |
|----------|----------|--------|---------|----------|
| B | 29.164 | 0.321 | 0.312 | 1,256.64 |
| | 315.3504 | 6.6395 | 621.114 | 2.39115 |

LESSON 101 Practice

- | | | | | | |
|----------|---------|-----------|---------|---------|-------|
| A | 0.072 | 6.72 | 5.208 | 4.117 | 8.778 |
| | 181.832 | 5.7684 | 13.6535 | 2.06304 | |
| | 4.6656 | 44,421.68 | 1.27652 | 167.39 | |

LESSON 102 Dividing Decimals by ...

- | | | | | |
|----------|-----|-------|--------|--------|
| A | 850 | 46.3 | 1.03 | 0.26 |
| | 85 | 4.63 | 0.103 | 0.026 |
| | 8.5 | 0.463 | 0.0103 | 0.0026 |
- B** 7.03 0.025
 0.0226 0.034
 5.745 0.0671
 0.128 14.203
- C** 10 247
 10^2 98.8
 10^4 3,060
- D** \$0.49
 \$15.10

LESSON 102 Practice

- A** 8,620 0.0016
862 0.042
86.2 0.273
8.62 0.058
0.862 78.253
- B** 10 307
 10^2 15.8
 10^3 425
 10^6 12.03
 10^4 7,640

- C** \$5.32
\$7
\$3.86
0.06 gallons of gas

LESSON 103 Dividing Decimals

- B** 7 8.3 590 13
9 8.3 37 550
8 2.6 180 84

LESSON 103 Practice

- A** 9 2.4 180 48
6 9.3 14 180
4 1.4 130 48
- B** 21.6 inches
30 tiles
79.2 inches

LESSON 104 Dividing Decimals

- B** 268.9 11.54 82.05
34.86 44.25 202.7

LESSON 104 Practice

- A** 1.5 8.6 120 2
4.5 0.8 52 96
8.05 126 558
27.6 9.25 50.8

LESSON 105 Converting Fractions to ...

- A** 29
409 5103
- B** 124, 1.24
8, 32, 0.32
- C** 0.5 1.02
0.8 0.84
0.36 0.29
0.85 0.544

LESSON 105 Practice

- A** 9/10 7/100 217/1000
65/10 329/100 1403/1000
- B** 2.5 0.52
1.4 0.9
1.5 0.55
1.6 2.12
0.2 0.36
0.74 0.32

LESSON 106 Converting Fractions to ...

- B** 0.375 9.5 0.56 1.4
0.429 4.667 0.909 2.625

LESSON 106 Practice

- A** 2.25 5.5 2.65 0.55
0.875 8.2 0.375 0.625
0.556 2.857 1.667 1.179

LESSON 107 Converting Decimals to ...

- A** 1, 6
- B** 3/5 1 11/50
9 4/5 8 9/20
1/20 19/250
7/25 11/40
2 3/4 3 5/8
1 9/25 5 1/125

LESSON 107 Practice

A	$1/5$	$8\ 1/50$
	$4\ 9/10$	$41/50$
	$4/5$	$5\ 33/50$
	$7\ 3/5$	$37/250$
	$6/25$	$3\ 1/200$
	$19/20$	$109/125$
	$1\ 27/100$	$4\ 127/200$
	$6\ 3/4$	$9\ 7/250$

LESSON 108 Converting Decimals to ...

A	10, 5	100, 25
	10, 2	1000, 125
B	$1/5$	$1\ 11/25$
	$3\ 1/10$	$7\ 47/50$
	$1/25$	$1/500$
	$12/25$	$7/200$
	$4\ 1/4$	$1\ 7/8$
	$6\ 3/20$	$4\ 1/40$

LESSON 108 Practice

A	$3/10$	$4\ 1/20$
	$2\ 4/5$	$27/50$
	$3\ 1/5$	$1\ 22/25$
	$4\ 3/10$	$1/8$
	$11/50$	$7\ 1/125$
	$13/20$	$13/40$
	$1\ 49/100$	$9\ 63/125$
	$7\ 3/4$	$8\ 27/1000$

LESSON 109 Converting Fractions to ...

B	$0.\bar{6}$	$0.\bar{1}$	0.875	$0.\bar{75}$
	0.8 $\bar{3}$	0. $\bar{63}$	0. $\bar{783}$	0.675

LESSON 109 Practice

A	$1.\bar{3}$	0.125	0.0 $\bar{9}$	0. $\bar{12}$
	1.1 $\bar{6}$	0. $\bar{2}$	0.75	1.35
	2.25	0. $\bar{6}$	0.4 $\bar{5}$	0. $\bar{31}$

LESSON 110 The Meaning of Percent

C	$1/2$	0.5	50%
	$4/5$	0.8	80%
	$9/25$	0.36	36%
	$1/40$	0.025	2.5%
	$43/50$	0.86	86%

LESSON 110 Practice

A	$1/10$	0.1	10%
	$7/10$	0.7	70%
	$3/5$	0.6	60%
	$1/20$	0.05	5%
	$3/4$	0.75	75%
	$9/10$	0.9	90%
	$1/125$	0.008	0.8%
	$9/200$	0.045	4.5%
	$24/125$	0.192	19.2%
	$14/25$	0.56	56%

LESSON 111 Converting Decimals to ...

A	80%	3%	0.5%
	20%	98%	7.4%
	220%	412%	310.2%
B	0.7	70%	
	0.45	45%	
	0.52	52%	
	0.08	8%	
	0.07	7%	
	0.11	11%	
	0.752	75.2%	

LESSON 111 Practice

A	90%	5%	0.3%
	10%	62%	1.6%
	160%	302%	520.8%
	370%	715%	673.4%
	50%	236%	0.8%
	420%	1%	105.9%
B	0.1	10%	
	0.35	35%	
	0.05	5%	
	0.024	2.4%	
	0.009	0.9%	
	0.274	27.4%	

LESSON 112 Converting Percents to ...

A	0.01	0.4	0.075
	0.05	0.28	2
	0.09	0.59	0.547
B	$40/100 \times 45 = 0.4 \times 45 = 18$		
C	1	10.5	
	4.5	40	
	2	33	

LESSON 112 Practice

A	0.02	0.11	0.006
	0.07	0.55	0.072
	0.03	0.32	1
	0.05	0.29	2.4
B	2.1	13.2	
	3.25	9	
	5	27	
	1.65	19.8	
	18	28	

LESSON 113 Fractions and Decimals ...

A	Above: -2.0	0.5	
	Below: -1 $\frac{1}{2}$	-1/2	
	Above: -2.75	-2.25	-1.5
	Below: -2 $\frac{1}{2}$	-1 $\frac{3}{4}$	-1 $\frac{1}{4}$
B	D	H	B E
	C	G	F A
C	-1/2, -0.5	-1 $\frac{3}{4}$, -1.75	7/8, 0.875
	-2 $\frac{5}{8}$, -2.625	1/8, 0.125	-1 $\frac{1}{4}$, -1.25

LESSON 113 Practice

A	-1.0		
	-2.0		
	-8.0		
	-0.36		
B	-4/5, -0.8	1 $\frac{4}{5}$, 1.8	-1 $\frac{3}{5}$, -1.6
	2/5, 0.4	1 $\frac{1}{5}$, 1.2	-2/5, -0.4
	-5 $\frac{1}{4}$, -5.25	-9 $\frac{1}{2}$, -9.5	-6 $\frac{1}{2}$, -6.5
	-5 $\frac{3}{4}$, -5.75	-8 $\frac{1}{4}$, -8.25	-7 $\frac{1}{2}$, -7.5

LESSON 114 Ordering Numeric ...

A	>	>	
	<	<	
B	50%, 0.85, 2.3	16%, 23%, 0.4	
	9%, 72%, 1.3	30%, 2.5, 4.8	
	20%, 0.4, 3/5	25%, 0.8, 5/4	
	0.125, 3/8, 62%	50%, 11/20, 3/2	

LESSON 114 Practice

A	15%, 0.5, 1.5	0.02, 0.05, 7%
	13%, 0.17, 2.4	28%, 32%, 0.4
	90%, 1.8, 2.1	20%, 1.5, 2.4
	15%, 9/4, 2.3	85%, 9/10, 1.2
	7%, 0.72, 71/10	9/20, 50%, 13/10
	10%, 2/5, 1/2	7/25, 30%, 65%

LESSON 115 Numbers as Fractions ...

B	5/6	0.833	83.3%
	17/25	0.68	68%
	3 $\frac{1}{2}$	3.5	350%
	7/8	0.875	87.5%
	11/9	1.222	122.2%
	9/40	0.225	22.5%
	7 $\frac{3}{4}$	7.75	775%
	123/250	0.492	49.2%

LESSON 115 Practice

A	2/3	0.667	66.7%
	3/4	0.75	75%
	4/9	0.444	44.4%
	41/50	0.82	82%
	1 $\frac{16}{25}$	1.64	164%
	11/12	0.917	91.7%
	19/50	0.38	38%
	16/7	2.286	228.6%
	8 $\frac{13}{50}$	8.26	826%
	9/200	0.045	4.5%

LESSON 116 Identifying Percent, Whole ...

- A** a 50 48
 50% a 15
 a 60 15
 12% 24 a
 80% a 4
- B** $15\% \cdot 20 = a$ $a\% \cdot 50 = 48$ $50\% \cdot a = 15$
 $a\% \cdot 60 = 15$ $12\% \cdot 24 = a$ $80\% \cdot a = 4$

LESSON 116 Practice

- A** $6\% \cdot 50 = a$
 $15\% \cdot 40 = a$
 $a\% \cdot 40 = 22$
 $a\% \cdot 25 = 24$
 $80\% \cdot 150 = a$
 $a\% \cdot 40 = 7$
 $a\% \cdot 800 = 600$
 $a\% \cdot 960 = a$
- B** 50%
 90%
 12/20
 2.3

LESSON 117 Types of Percent Problems

- B** 360 12.5%
 95 38.4
 25% 150

LESSON 117 Practice

- A** 225 110
 20% 56
 210 14%
 77 28%
 9% 176

LESSON 118 Word Problems: Percents

- A** \$385
- B** \$5.60
 \$50.40
 12%
 \$55
 \$1,048.60
 \$36,000
 \$162
 \$561

LESSON 118 Practice

- A** \$40.50
 \$66.70
 \$4.20
 180 pages
 48%
 \$126
 \$540.80
 \$65
 92%
 \$63.60
 48,000
 36 boys

RATIOS AND PROPORTIONS

LESSON 119 Introduction to Ratios

- A** 5:8 5 to 8 $\frac{5}{8}$
9:7 9 to 7 $\frac{9}{7}$
11:8 11 to 8 $\frac{11}{8}$
6:13 6 to 13 $\frac{6}{13}$
6:3 6 to 3 $\frac{6}{3}$
- B** 20:4 20/4
15:7 15/7
5:6 5/6
60:24 60/24
26:40 26/40
15:25 15/25

LESSON 119 Practice

- A** 9:12 9 to 12 $\frac{9}{12}$
7:16 7 to 16 $\frac{7}{16}$
14:25 14 to 25 $\frac{14}{25}$
30:22 30 to 22 $\frac{30}{22}$
7:38 7 to 38 $\frac{7}{38}$
- B** 15:32 15/32
6:5 6/5
24:32 24/32
18:40 18/40
3:5 3/5
15:52 15/52

LESSON 120 Simplifying Ratios

- A** 35, 6, 5:6
- B** 2:3 6:7
1:2 7:9
9:5 5:14
2:3 11:18
6:7 3:8
1:5
2:9

LESSON 120 Practice

- A** 4:7 5:8
3:5 4:9
2:9 8:7
1:7 4:5
5:9 6:7
11:13 3:4
2:7
8:25

8:2 (5 and 3) or 16:14 (15 and 1)

LESSON 121 Simplifying Ratios

- A** 32:50 = 16:25
- B** Answers will vary.
- C** 1:5 2:3 16:7
2:5 1:4 33:10
7:13 1:6 1:5

LESSON 121 Practice

- A**
- | | | | | | |
|---|---|---|---|---|---|
| O | O | | | | O |
| | O | O | | O | |
| | O | | O | | O |
| O | | | O | O | |
| O | | O | | O | |
- B** 9:10 3:4 29:10
2:3 25:7 1:4
1:2 4:11 4:11
7:25 10:19 5:14

LESSON 122 Word Problems: ...

- A** 4 pies
- B** 25 tomatoes
12 problems
10 roses
175 children
6 cups of milk
20 boys
150 square inches
1 teaspoon

LESSON 122 Practice

- A** 6 beet plants
10 lettuce plants
20:80 or 1:4
- B** 5 problems
28 cakes
18 bananas
24 girls
42 apples
20 girls
54 inches
\$10
22 miles

LESSON 123 Understanding Proportions

- A** 5, 25
- B** 3, 5
- C** True False
False True
False False
True True

LESSON 123 Practice

- A** False True
True False
False True
True False
True True
True False
- B** $2:8 = x:40$
 $4:10 = 20:y$
 $255:10 = z:5$
 $80:1 = 300:n$
 $23:25 = k:100$

LESSON 124 Solving Proportions

- A** 2, 16, $x = 16$
- B** $x = 16$ $x = 35$
 $x = 24$ $x = 20$
 $x = 21$ $x = 16$
 $x = 35$ $x = 35$
- C** \$15.75 220 miles
60 cans 3 hours

LESSON 124 Practice

- A** $x = 27$ $x = 7$
 $x = 9$ $x = 44$
 $x = 70$ $x = 5$
 $x = 30$ $x = 28$
 $x = 36$ $x = 30$
- B** 3 cups 24 inches
\$2 3 crayons

LESSON 125 Solving Proportions

- B** $x = 16 \frac{2}{3}$ $x = 6 \frac{1}{4}$
 $x = 5$ $x = 5$
 $x = 3 \frac{3}{7}$ $x = 2 \frac{4}{11}$
 $x = 11 \frac{2}{3}$ $x = 63$
 $x = 112$ $x = 4 \frac{4}{5}$

LESSON 125 Practice

- A** $x = 6 \frac{3}{4}$ $x = 4 \frac{4}{5}$
 $x = 7 \frac{7}{9}$ $x = 3 \frac{1}{5}$
 $x = 4 \frac{1}{2}$ $x = 5$
 $x = 2$ $x = 12 \frac{3}{5}$
 $x = 7 \frac{1}{2}$ $x = 1 \frac{2}{3}$
 $x = 16$ $x = 4$

LESSON 126 Finding Unit Rates

- C** \$31.50/ticket 5 miles/day
45 words/minute 8 cookies/egg
- D** 15 days
\$104
5 hours

LESSON 126 Practice

- A** 0.5 inch/hour 24 miles/gallon
4 lessons/day 65 heartbeats/minute
3 minutes/lap 25 customers/hour
- B** 5 days
324 cookies
5,120 cars
1 hour
9 gallons

LESSON 127 Finding Unit Prices

C	\$5.45/pound	\$4.70/pound
	\$0.25/inch	\$0.20/inch
	\$26/gallon	\$30 /gallon
	\$0.15/egg	\$0.20/egg
	\$0.90/bottle	\$1/bottle

LESSON 127 Practice

A	\$3.45/kg	\$3.60/kg
	\$0.65/oz	\$0.60/oz
	\$1.50/m	\$1.60/m
	\$0.55/each	\$0.50/each

LESSON 128 Converting Units

- A** $12 \cdot 8, x = 96$
- B** 5.8 kilometers
36 km/h
- C** 13,200 feet 88 fps
2 miles 300 mph
12.7 cm 80.45 m/s

LESSON 128 Practice

- A** 1.2 km 6,336 feet
0.5 mile 20.32 cm
0.25 mile 40 m
9 inches 482.7 m
5 yards 0.75 km
180 km/h 32.18 m/s
100 m/s 3,000 mph

LESSON 129 Converting Units of Length

- B** 36 ft 5,800 m
8 ft 2 in 37 mm
17 yd 1 ft 4.68 km
182 cm 33 ft
60.96 m 5 mi

LESSON 129 Practice

- A** 54 in 700 mm
4,400 yd 204 cm
4 ft 10 in 1.29 km
25 yd 1 ft 8.3 m
9,660 m 3.13 mi
12.7 mm 23.76 in
0.46 km 99 ft
0.51 km 4.38 mi

LESSON 130 Customary Units and ...

B	Mile	Pound	Gallon	
	Yard			
	Foot	Ounce	Quart	
	Inch		Pint	
			Cup	
	Kilometer	Kilogram	Liter	
	Meter			
	Centimeter			Gram
	Millimeter			Milliliter

C

	X	X	
			X
X		X	
	X		X

LESSON 130 Practice

- C** mile kilometer
inch centimeter
feet meter
yard meter
- D** Scale – Grams
Thermometer – Celsius
Ruler – Inches
Protractor – Degrees
Beaker – Milliliters

LESSON 131 Converting between ...

D 1 km = 1,000 m = 100,000 cm = 1,000,000 mm
1 m = 0.001 km = 100 cm = 1,000 mm
1 cm = 0.00001 km = 0.01 m = 10 mm
1 mm = 0.000001 km = 0.001 m = 0.1 cm

1 kg = 1,000 g = 1,000,000 mg
1 g = 0.001 kg = 1,000 mg
1 mg = 0.000001 kg = 0.001 g

1 kL = 1,000 L = 1,000,000 mL
1 L = 0.001 kL = 1,000 mL
1 mL = 0.000001 kL = 0.001 L

LESSON 131 Practice

A 500 g 170 mm
450 mm 8,000 cm
890 mL 3.36 g
2.3 kg 270 mL
6.2 m 0.5 km

B

O	
	O
O	
	O

O	
	O
O	
	O

C 8.4 km
1.65 m
12.5 L
60 mL
760 g

LESSON 132 Converting Customary ...

B 64 pt 4.5 gal
36 c 2 qt
22 pt 3 gal

C 96 cookies
56 fl oz
3 qt
18 pt

LESSON 132 Practice

A 37.5 gal 16 gal
32 qt 21 qt
48 c 6 gal
256 qt 700 pt
120 c 30 qt

C 6 cups
4 bottles
2.5 gallons
Container #1

LESSON 133 Converting Customary ...

B 96 oz 640 oz
4 lb 4 t
1,400 lb 1 t
4,536 kg 2,721.54 g

C 4.5 lb
8 oz
1,500 lb
2,100 lb

LESSON 133 Practice

A 65.6 oz 3,200 oz
2.25 t 907.18 g
3.63 kg 9.5 lb
907.18 g 124 lb
1,814.4 kg 0.2 t

C 1.5 oz
5 lb 12 oz
3 trucks
4 lb

LESSON 134 Converting Temperatures

C 37°C -27.8°C
68°F -76°F
32°F 21.1°C
100°C -99.4°F

LESSON 134 Practice

A -459.4°F 1,371.1°C
38.9°C 0°C
107.1°F -40°F
5,982.2°C 56.7°C
9,941°F -128.6°F

LESSON 135 Converting Customary ...

A Answers will vary.

LESSON 135 Practice

A	\$1.50/foot = \$4.95/meter	\$2.50/meter = \$0.76/foot
	\$2/gallon = \$0.125/cup	\$0.005/milliliters = \$1.2/cup
	\$4/pound = \$0.009/gram	\$0.013/gram = \$6.04/pound
	\$1/liter = \$0.24/cup	\$0.028/fluid ounce = \$0.22/cup
	\$1.1/pound = \$2.42/kilogram	\$3/kilogram = \$1.36/pound

EXPONENTS

LESSON 136 Understanding Exponents

D	32	25
	27	$-7 \cdot -7 \cdot -7, 7$
E	81	-1,000
	2	2
	27	-8
	80	49

LESSON 136 Practice

A	9	$7^5, 7 \cdot 7 \cdot 7 \cdot 7, 7$
	1,000	$-9 \cdot -9 \cdot -9 \cdot -9, 81$
		$-5 \cdot -5 \cdot -5 \cdot -5 \cdot -5, 16$
		$8^3 \cdot 3^4, 8 \cdot 8 \cdot 8 \cdot 3 \cdot 3 \cdot 3 \cdot 3, 32$
B	81	64
	1/4	-1
	100,000	1
	1/100	-1/1,000
	64	16
	100	1
	81	-8,000
	10,000	-1

$$3^2 = 4 + 5 \text{ (3 squared = 4 + 5)}$$

LESSON 137 Patterns in Zeros

A	$9 \cdot 10^8$	$76 \cdot 10^{-10}$
B	$9 + (-6) = 3$	$7 - (-3) = 10$
C	10^{10}	10^4
	10^4	10^{-10}
	10^{-9}	10^{13}
D	$(8 \cdot 10^4) \cdot (3 \cdot 10^{-7}) = 24 \cdot 10^{-3}$	$(7 \cdot 10^{-6}) \cdot (5 \cdot 10^{-5}) = 35 \cdot 10^{-11}$
	$(42 \cdot 10^6) / (6 \cdot 10^{-4}) = 7 \cdot 10^{10}$	

LESSON 137 Practice

A 10^8 10
 10^{-2} 10^{-7}
 10^6 10^9
 10^{-9} 10^{-9}

B $35 \cdot 10^3$
 $-6 \cdot 10^2$
 $6 \cdot 10^{-6}$
 $-3 \cdot 10^5$

C $(4 \cdot 10^3) \cdot (7 \cdot 10^{-6}) = 28 \cdot 10^{-3}$
 $(2 \cdot 10^5) \cdot (8 \cdot 10^5) = 16 \cdot 10^{10}$
 $(6 \cdot 10^{-5}) \cdot (9 \cdot 10^{-5}) = 54 \cdot 10^{-10}$
 $(35 \cdot 10^5) / (5 \cdot 10^4) = 7 \cdot 10$
 $(9 \cdot 10^{-6}) / (3 \cdot 10^5) = 3 \cdot 10^{-11}$
 $(56 \cdot 10^4) / (7 \cdot 10^{-6}) = 8 \cdot 10^{10}$

Both weigh the same.

LESSON 138 Exponent Rules

A Answers will vary.

B

	O		O	O
O		O		O
O	O			O

LESSON 138 Practice

A 25 1/7
1 9
56 25

B a^6 m^3 $p^{18}q^{24}$
 $4/n^{10}$ r^4 $x^6/27y^3$
 b^4 $1/k^5$ $2p^2/q^5$
 s^3t^9 $h/5$ $9x^2y^2/z$

LESSON 139 Understanding Square Roots

B 15 4,096
C 1 3
7 12
5 10
6 11

D 80
-73
19
2

LESSON 139 Practice

A $\sqrt{1} = 1$ $\sqrt{36} = 6$ $\sqrt{121} = 11$ $\sqrt{256} = 16$
 $\sqrt{4} = 2$ $\sqrt{49} = 7$ $\sqrt{144} = 12$ $\sqrt{289} = 17$
 $\sqrt{9} = 3$ $\sqrt{64} = 8$ $\sqrt{169} = 13$ $\sqrt{324} = 18$
 $\sqrt{16} = 4$ $\sqrt{81} = 9$ $\sqrt{196} = 14$ $\sqrt{361} = 19$
 $\sqrt{25} = 5$ $\sqrt{100} = 10$ $\sqrt{225} = 15$ $\sqrt{400} = 20$

B 225
9
32
192
5
C 1
81
25
90