Navigating Through Mathematics 1st edition Collins Test Bank

SKU: 9780134019543-TEST-BANK

Navigating Through Mathematics 1st edition Collins Test Bank

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Write the number in expanded form.

1) 72
A) 7(100) + 2(10) B) 7(10) + 2(1) C) 7(10) + 2(100) D) 7(1) + 2(10)
Answer: B

2) 507
A) 5(10)+ 0(100) + 7(1000) B) 5(1000) + 0(100) + 7(10)
C) 5(1) + 0(10) + 7(100) D) 5(100) + 0(10) + 7(1)
Answer: D

3) 581
A) 5(10) + 8(100) + 1(1000) B) 5(1) + 8(10) + 1(100)
C) 5(100) + 8(10) + 1(1) D) 5(1000)+ 8(100) + 1(10)
Answer: C

4) 1,854
A) 1(1) + 8(10) + 5(100) + 4(1000) B) 1(10,000) + 8(1000) + 5(100) + 4(10)
C) 1(1000) + 8(100) + 5(10) + 4(1) D) 1(10) + 8(100) + 5(1000) + 4(10,000)
Answer: C

5) 1,000
A) 1(1) + 0(10) + 0(100) + 0(1000) B) 1(1000) + 0(100) + 0(10)+ 0(1)
C) 1(10,000) + 0(1000) + 0(100) + 0(10) D) 1(10) + 0(100) + 0(1000) + 0(10,000)
Answer: B

6) 49,523
A) 4(10) + 9(100) + 5(1000) + 2(10,000) + 3(100,000) B) 4(10,000) + 9(1000) + 5(100) + 2(10) + 3(1)
C) 4(1) + 9(10) + 5(100) + 2(1000) + 3(10,000) D) 4(100,000) + 9(10,000) + 5(1000) + 2(100) + 3(10)
Answer: B

Write the expression as a Hindu–Arabic numeral.

7) $7(10^1) + 8(10^0)$
A) 87 B) 78 C) 870 D) 780
Answer: B

8) $9(10^1) + 0(10^0)$
A) 19 B) 91 C) 90 D) 9
Answer: C

9) $6(10^2) + 2(10^1) + 8(10^0)$
A) 628 B) 6280 C) 620 D) 6028
Answer: A

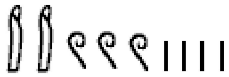
10) $8(10^3) + 4(10^2) + 0(10^1) + 8(10^0)$
A) 84,080 B) 8480 C) 848 D) 8408
Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

Write the Egyptian numeral for the given Hindu–Arabic numeral.

11) 234

A)



B)

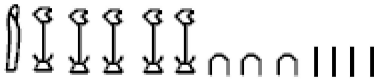
C)

D)

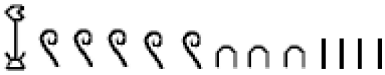
Answer: B

12) 1534

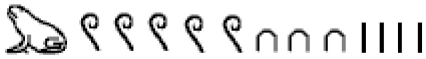
A)



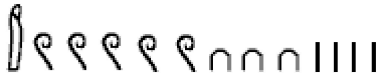
B)



C)



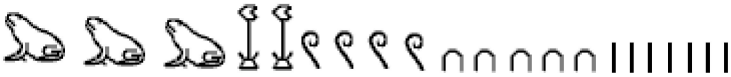
D)



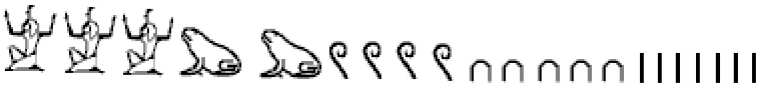
Answer: B

13) 32,457

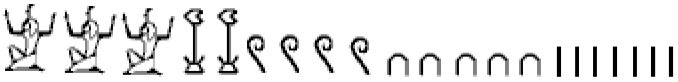
A)



B)



C)



D)

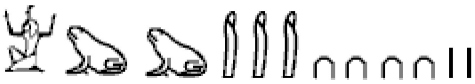
Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

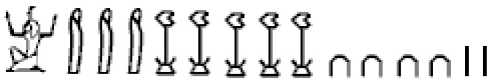
14) 1,235,042

A)

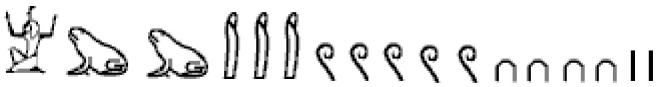
B)



C)



D)



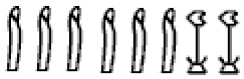
Answer: A

Write the Hindu–Arabic numeral for the given Egyptian numeral.

15)

A) 1011 B) 111 C) 1101 D) 1100

Answer: B

16) 

A) 6020 B) 60,200 C) 6200 D) 62,000

Answer: D

17)

A) 3067 B) 3607 C) 3670 D) 367

Answer: D

18)

A) 240,005 B) 2,000,045 C) 2405 D) 245

Answer: B

Write the Hindu–Arabic numeral that the given Roman numeral represents.

19) MCMLXVII

A) 1967 B) 2167 C) 1947 D) 2147

Answer: A

20) XLV

A) 45 B) 64 C) 44 D) 65

Answer: A

Navigating Through Mathematics 1st edition Collins Test Bank

21) MMMCCX
A) 32,100 B) 3210 C) 321,000 D) 321
Answer: B

22) LV
A) 55 B) 45 C) 65 D) 53
Answer: A

23) XCI
A) 91 B) 81 C) 191 D) 111
Answer: A

24) DCL
A) 650 B) 700 C) 680 D) 550
Answer: A

25) $\overline{V}$MMXV
A) 7116 B) 7115 C) 6915 D) 7015
Answer: D

26) $\overline{XL}$MMDCI
A) 6601 B) 41,601 C) 42,601 D) 43,601
Answer: C

Write the numeral as a Roman numeral.

27) 842
A) CMMXLII B) DCCCXLII C) DCCCLXII D) CCMXLII
Answer: B

28) 999
A) CMXCIX B) IM C) IXM D) MCXCIX
Answer: A

29) 2022
A) MMCCII B) CCXXII C) MMCCXX D) MMXXII
Answer: D

30) 70
A) LXVII B) LXXI C) LXX D) LXI
Answer: C

31) 32,400
A) $\overline{XX}$MMCD B) $\overline{XXX}$MMCDII C) $\overline{X}$MMCD D) $\overline{XXX}$MMCD
Answer: D

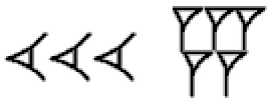
32) 1651
A) MCDLXV B) MDCLXII C) MMDCLXII D) MDCLI
Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

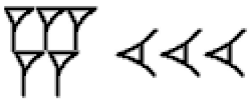
Write the Babylonian numeral for the given Hindu–Arabic numeral.

33) 53

A)

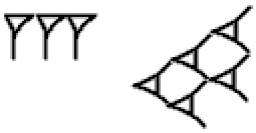


B)



C)

D)



Answer: C

34) 474

A)

B)

C)

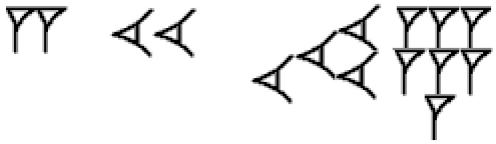
D)

Answer: B

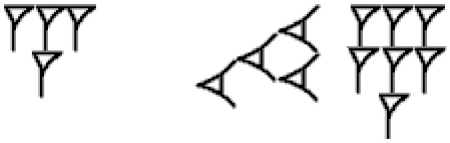
Navigating Through Mathematics 1st edition Collins Test Bank

35) 8447

A)

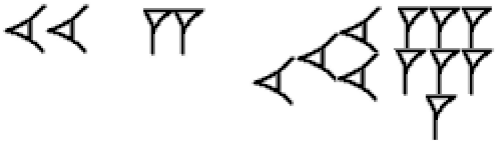


B)



C)

D)



Answer: A

36) 86,530

A)

B)

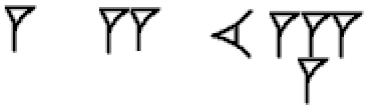
C)

D)

Answer: C

Write the Hindu–Arabic numeral for the given Babylonian numeral.

37)



A) 3734 B) 314 C) 3614 D) 3674

Answer: A

Navigating Through Mathematics 1st edition Collins Test Bank

38)

A) 4010 B) 351 C) 651 D) 411

Answer: D

Write the given Hindu–Arabic numeral as a Chinese numeral.

39) 2000

A) 二千

B) 二百

C) 千千

D) 二千

Answer: D

40) 620

A) 六二萬

B) 六百二萬

C) 六百二十

D) 五百二十

Answer: C

41) 4900

A) 四九百 四九百

B) 四九零零

C) 四千九十

D) 四千九百

Answer: D

42) 85

A) 八六

B) 八五

C) 八十六

D) 八十五

Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

43) 367

A) 三百六七

B) 三六七

C) 三千六十七

D) 三百六十七

Answer: D

44) 3057

A) 三千零五十七

B) 三千零百五十七

C) 三零五七

D) 三千五十七

Answer: A

Write the given Chinese numeral as a Hindu–Arabic numeral.

45)

九千

A) 96 B) 90 C) 9000 D) 900

Answer: C

46)

六百四十

A) 940 B) 840 C) 540 D) 640

Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

47)

七
千
九
百

A) 7090 B) 7900 C) 790 D) 709

Answer: B

48)

八
十
一

A) 800 B) 801 C) 81 D) 80

Answer: C

49)

二
百
五
十
七

A) 2057 B) 257 C) 266 D) 268

Answer: B

50)

九
千
零
五
十
六

A) 967 B) 9560 C) 9056 D) 3956

Answer: C

Navigating Through Mathematics 1st edition Collins Test Bank

Convert the other base number to base 10.

51) 55_8

A) 80 B) 360 C) 63 D) 45

Answer: D

52) $23{,}776_8$

A) 200 B) 158 C) 10,238 D) 190,208

Answer: C

53) 21_5

A) 11 B) 105 C) 15 D) 55

Answer: A

54) 231_4

A) 6 B) 21 C) 24 D) 45

Answer: D

55) 1101_2

A) 13 B) 12 C) 22 D) 6

Answer: A

56) 3205_6

A) 4325 B) 125 C) 43 D) 725

Answer: D

57) 3207_9

A) 2356 B) 268 C) 2943 D) 28,863

Answer: A

58) 3095_{sixteen}

A) 12,437 B) 6320 C) 197 D) 49,520

Answer: A

59) 54012_{six}

A) 32,472 B) 7352 C) 1106 D) 336

Answer: B

60) 2301_{15}

A) 7426 B) 496 C) 3465 D) 346

Answer: A

Change the base ten number to a number in the base indicated.

61) Write 68 in base eight.

A) 104_8 B) 120_8 C) 140_8 D) 102_8

Answer: A

Navigating Through Mathematics 1st edition Collins Test Bank

62) Write 503 in base eight.
A) 656_8 B) 767_8 C) 565_8 D) 676_8

Answer: B

63) Write 2874 in base eight.
A) 4572_8 B) 5427_8 C) 4527_8 D) 5472_8

Answer: D

64) Write 13,562 in base eight.
A) $23{,}227_8$ B) $32{,}327_8$ C) $32{,}372_8$ D) $23{,}272_8$

Answer: C

65) Write 503 in base five.
A) 4003_5 B) 3004_5 C) 3040_5 D) 4030_5

Answer: A

66) Write 2874 in base five.
A) 42424_5 B) 42444_5 C) 42422_5 D) 42222_5

Answer: B

67) Write 2874 in base seven.
A) 11244_7 B) 11422_7 C) 11442_7 D) 11224_7

Answer: A

68) Write 13,562 in base seven.
A) $54{,}353_7$ B) $53{,}743_7$ C) $53{,}456_7$ D) $54{,}121_7$

Answer: A

69) Write 2874 in base nine.
A) 3193_9 B) 3548_9 C) 3483_9 D) 3843_9

Answer: D

70) Write 13562 in base nine.
A) 1506_9 B) 20538_9 C) 6051_9 D) 83502_9

Answer: B

71) Write 2222 in base sixteen.
A) 8AE B) $8EA_{16}$ C) $8AE_{16}$ D) 8EA

Answer: C

72) Write 6784 in base sixteen.
A) $01A8_{16}$ B) $1A80_{16}$ C) $1A8_{16}$ D) $1A08_{16}$

Answer: B

73) Write 8731 in base sixteen.
A) $22B1_{16}$ B) $221B_{16}$ C) 2211_{16} D) $222A_{16}$

Answer: B

Navigating Through Mathematics 1st edition Collins Test Bank

74) Write 1573 in base fifteen.

A) $6D9_{15}$ B) $6ED_{15}$ C) $6E9_{15}$ D) $6DE_{15}$

Answer: B

75) Write 4829 in base seventeen.

A) $GC0_{17}$ B) $9C1_{17}$ C) $GC1_{17}$ D) $G91_{17}$

Answer: C

76) Write 359 in base two.

A) 101100101_2 B) 101011111_2 C) 101100111_2 D) 101101011_2

Answer: C

Make the indicated conversion.

77) Convert 11011_{two} to octal.

A) 44_8 B) 33_8 C) 1616_8 D) 22_8

Answer: B

78) Convert 11111000_{two} to octal.

A) 370_8 B) 16240_8 C) 460_8 D) 230_8

Answer: A

79) Convert 10001011100_{two} to octal.

A) 88168_8 B) 1121_8 C) 2134_8 D) 2242_8

Answer: C

80) Convert 1010101111001101_{two} to hexadecimal.

A) $B6FE1_{16}$ B) $111E31_{16}$ C) 125715_{16} D) $ABCD_{16}$

Answer: D

81) Convert 1100110010100_{two} to hexadecimal.

A) $14A24_{16}$ B) 14624_{16} C) 1994_{16} D) 3311_{16}

Answer: C

Add in the indicated base.

82) $221_4 + 131_4$

A) 412_4 B) 352_4 C) 1012_4 D) 1112_4

Answer: C

83) $303_4 + 22_4$

A) 1031_4 B) 1001_4 C) 331_4 D) 325_4

Answer: C

84) $333_5 + 30_5$

A) 403_5 B) 423_5 C) 313_5 D) 413_5

Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

85) $44_5 + 33_5$

A) 122_5 B) 131_5 C) 231_5 D) 132_5

Answer: D

86) $65_7 + 11_7$

A) 76_7 B) 121_7 C) 106_7 D) 36_7

Answer: C

87) $62_7 + 35_7$

A) 210_7 B) 117_7 C) 140_7 D) 130_7

Answer: D

88) $111_2 + 11_2$

A) 1111_2 B) 1010_2 C) 1000_2 D) 1101_2

Answer: B

89) $435_7 + 41_7$

A) 566_7 B) 536_7 C) 406_7 D) 506_7

Answer: D

90) $1011_2 + 110_2$

A) $11{,}001_2$ B) 1111_2 C) $10{,}001_2$ D) $11{,}000_2$

Answer: C

91) $56_8 + 75_8$

A) 131_8 B) 153_8 C) 142_8 D) 156_8

Answer: B

Subtract in the indicated base.

92) $32_4 - 23_4$

A) 3_4 B) 10_4 C) 2_4 D) 9_4

Answer: A

93) $301_4 - 102_4$

A) 133_4 B) 143_4 C) 199_4 D) 232_4

Answer: A

94) $1001_4 - 32_4$

A) 312_4 B) 968_4 C) 303_4 D) 321_4

Answer: C

95) $64_8 - 35_8$

A) 21_8 B) 24_8 C) 31_8 D) 27_8

Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

96) $724_8 - 62_8$

A) 632_8 B) 641_8 C) 642_8 D) 712_8

Answer: C

97) $412_5 - 21_5$

A) 342_5 B) 343_5 C) 341_5 D) 442_5

Answer: C

98) $231_5 - 22_5$

A) 244_5 B) 143_5 C) 104_5 D) 204_5

Answer: D

99) $11{,}000_2 - 111_2$

A) $10{,}011_2$ B) $10{,}000_2$ C) $11{,}001_2$ D) $10{,}001_2$

Answer: D

100) $FE1_{16} - 12_{16}$

A) FDC_{16} B) FDF_{16} C) EFD_{16} D) FCF_{16}

Answer: D

Multiply in the indicated base.

101) $24_5 \times 3_5$

A) 132_5 B) 312_5 C) 72_5 D) 122_5

Answer: A

102) $33_5 \times 41_5$

A) 4303_5 B) 3003_5 C) 1353_5 D) 2403_5

Answer: B

103) $31_4 \times 3_4$

A) 223_4 B) 113_4 C) 213_4 D) 203_4

Answer: C

104) $223_4 \times 3_4$

A) 2101_4 B) 1991_4 C) 2001_4 D) 1901_4

Answer: C

105) $110_2 \times 11_2$

A) $10{,}010_2$ B) 1001_2 C) 1011_2 D) $10{,}011_2$

Answer: A

106) $100_2 \times 101_2$

A) $10{,}101_2$ B) $10{,}110_2$ C) $10{,}100_2$ D) 1100_2

Answer: C

Navigating Through Mathematics 1st edition Collins Test Bank

107) $63_7 \times 4_7$

A) 445_7 B) 345_7 C) 355_7 D) 346_7

Answer: B

108) $235_7 \times 3_7$

A) 1062_7 B) 1041_7 C) 941_7 D) 1141_7

Answer: B

109) $64_8 \times 6_8$

A) 4722_8 B) 4697_8 C) 4706_8 D) 4700_8

Answer: D

Divide in the indicated base.

110) $312_4 \div 2_4$

A) 113_4 B) 123_4 C) 223_4 D) 121_4

Answer: B

111) $233_6 \div 3_6$

A) 41_6 B) 52_6 C) 151_6 D) 51_6

Answer: D

112) $2500_6 \div 4_6$

A) 413_6 B) 423_6 C) 313_6 D) 410_6

Answer: A

113) $321_7 \div 6_7$

A) 25_7 B) 36_7 C) 35_7 D) 40_7

Answer: B

114) $1306_7 \div 4_7$

A) 224_7 B) 135_7 C) 235_7 D) 134_7

Answer: C

115) $122_3 \div 2_3$

A) 22_3R1_3 B) 22_3R2_3 C) 21_3R2_3 D) 21_3R1_3

Answer: A

116) $422_5 \div 3_5$

A) 122_5R3_5 B) 121_5R2_5 C) 121_5R4_5 D) 122_5R1_5

Answer: D

Navigating Through Mathematics 1st edition Collins Test Bank

117) $700_{11} \div 5_{11}$

A) 140_{11} B) 144_{11} C) $142_{11}R4_{11}$ D) $144_{11}R2_{11}$

Answer: D

Multiply using the Egyptian algorithm.

118) 6 × 54

A) 344 B) 324 C) 298 D) 128

Answer: B

119) 28 × 17

A) 396 B) 506 C) 476 D) 456

Answer: C

120) 31 × 109

A) 2999 B) 3129 C) 3379 D) 3059

Answer: C

121) 122 × 284

A) 34,048 B) 38,248 C) 36,218 D) 34,648

Answer: D

Multiply using the Russian Peasant method.

122) 7 × 70

A) 420 B) 490 C) 480 D) 510

Answer: B

123) 4 × 153

A) 622 B) 602 C) 612 D) 592

Answer: C

124) 68 × 358

A) 24,024 B) 24,334 C) 24,304 D) 24,344

Answer: D

125) 419 × 137

A) 56,493 B) 57,403 C) 57,183 D) 56,683

Answer: B

Multiply using the lattice method.

126) 9 × 214

A) 1926 B) 1935 C) 1917 D) 2140

Answer: A

127) 77 × 98

A) 7646 B) 7536 C) 7546 D) 7556

Answer: C

Navigating Through Mathematics 1st edition Collins Test Bank

128) 476 × 18
A) 8558 B) 8578 C) 8668 D) 8568
Answer: D

129) 67 × 31
A) 2077 B) 2067 C) 2177 D) 2087
Answer: A

130) 302 × 51
A) 15,502 B) 15,392 C) 15,412 D) 15,402
Answer: D

131) 129 × 81
A) 10,459 B) 10,439 C) 10,549 D) 10,449
Answer: D

132) 21 × 18
A) 378 B) 478 C) 388 D) 368
Answer: A

133) 153 × 597
A) 91,441 B) 91,331 C) 91,341 D) 91,351
Answer: C

Multiply using Napier's bones.

134) 7 × 41
A) 294 B) 287 C) 280 D) 328
Answer: B

135) 4 × 56
A) 220 B) 224 C) 168 D) 280
Answer: B

136) 7 × 213
A) 1704 B) 1491 C) 1498 D) 1484
Answer: B

137) 3 × 1438
A) 4314 B) 8628 C) 4317 D) 2157
Answer: A

138) 3 × 4564
A) 13,692 B) 13,695 C) 13,689 D) 27,384
Answer: A

139) 25 × 225
A) 5600 B) 5650 C) 5625 D) 11,250
Answer: C

Navigating Through Mathematics 1st edition Collins Test Bank

140) 46×322

A) 15,134 B) 14,812 C) 14,766 D) 14,858

Answer: B

Navigating Through Mathematics 1st edition Collins Test Bank