BRADBURG'S CATON'S MATHEMATICAL SERIES: KEY OF SOLUTIONS TO THE WRITTEN EXAMPLES IN BRADBURY'S PRACTICAL ARITHMETIC

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649621712

Bradburg's Caton's Mathematical Series: Key of Solutions to the Written Examples in Bradbury's Practical Arithmetic by William F. Bradbury

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

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Trieste

Bradbury's Eaton's Mathematical Series.

KEY

OF

SOLUTIONS TO THE WRITTEN EXAMPLES

IN

BRADBURY'S

PRACTICAL ARITHMETIC.

BY

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THOMPSON, BROWN, AND CO.

BOSTON. CHICAGO.

University Press:
JOHN WILSON AND SON, CAMBRIDGE, U. S. A.

PREFACE.

EDUCATION is a *drawing out* of the intellectual powers. No study is better adapted to this *drawing out* than Arithmetic. But to make it most useful for this purpose, neither book nor teacher should do for a pupil what he can do for himself. This Key, therefore, is not designed for the use of pupils.

In the multiplicity of their labors some teachers have not the time to perform the numerical work required for a complete solution of the problems given to a class; some desire assurance that their own work is correct; comparatively few find at once the shortest and best methods of solving the various problems; for such this Key has been prepared.

To teach pupils to take the shortest road in the solution of problems is one of the most difficult, as well as one of the most important things for the teacher of Arithmetic to do. Most seem bound to walk with great labor up hill, only for the sake of walking down again. In this Key great care has been taken to find the shortest method of solution.

The principle of cancellation has been introduced wherever it was possible without making the process obscure.

Much useless labor has been saved, especially in working the examples given in the Appendix, by removing perfect powers from under the radical sign. (See pp. 153–155, Exs. 604, 606, 611, 614, 622. If this process cannot be made plain to the pupil, he can work the example without removing such factors.)

In most of the examples the answers have been given in accordance with the last clause of Note 2, Art. 318; though generally the sign + or − has been attached when the exact answer was greater or less than the given answer. In a few instances the answers have been left with mills and decimals of mills.

It has not been thought best to give the numerical work in the simpler problems; for example, in the four Simple Rules, many in Common Fractions, in Decimals, the Metric System, Square and Cube Root.

W. F. B.

CAMBRIDGE, MASS., Jan. 1, 1880.

KEY OF SOLUTIONS

TO THE

WRITTEN EXAMPLES IN BRADBURY'S PRACTICAL ARITHMETIC.

NOTATION.

Page 6-7.

26. 638
27. 356
28. 653
29. 563
30. 365
31. 651
32. 1651
33. 42554
34. 816200
35. 6104276
36. 306502
37. 946514925
38. 6015007400
39. 5651406
40. 74000000
41. 63014700
42. 2.5
43. 0.52
44. 60.04
45. 0.204
46. 800.014
47. 4016007.04
48. 17017017.017
49. 1001001100.01
50. 11000011000.011
51. 16006600.06
52. 1001001001.01
53. 10010010010.1
54. 555555.055
55. 1600.16
56. 2020.02

ADDITION.

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29. 988
30. 1227
31. 955
32. 9279
33. 8999
34. 11636
35. 99885
36. 9774
37. 7665
38. 8649
39. 388
43. 1849
44. 17.99
45. 18752
46. 168.997
47. 1669
48. 2331
49. 2379.7
50. 191955
51. 48043
52. 458.56
53. 77379
54. 65248
55. 52.579
56. 135437
57. 9212.662
58. 105171
59. 2456.137
60. 42.436
61. 427.458

62. $379.52
63. 197008
64. $206.78
65. 131.501
66. 94279
67. 195061
68. 286900
69. 214362
70. $230.846
71. 53442
72. 1054.46
73. 77347
74. 1743
75. 889.596
76. 84788.
77. 31116
78. 83619
79. 84000500.206
80. 2254.22
81. 520.062
82. 6899168
84. $504.20
85. $61.95
86. $7608
87. 1524553000
88. $84571886
89. $6506
90. 43758310.901
91. $18828.84
92. $574.05
93. $2454.63
94. $10477
95. 66465 sq. m.
96. 121000 sq. m.
97. 4700745
98. 13922000
99. 482818
100. 514698
101. 485044
102. 515826
103. 519845
104. 590037
105. 589891
106. 468785
107. 365
108. 33648
109. 27420
110. $10110.20
111. 319171
112. $31762
113. $27468867
114. 43221746
115. $1828.40
116. 1995

SUBTRACTION.

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24. 1512
25. 6261
26. 5021
27. 1440
28. 4112
29. 3201
30. 5310
31. $1412
32. 284556
33. $2264
37. 354.167
38. 4248657
39. 88.996
40. 1310174
41. 20304.73
42. 83355
43. 4181046
44. 1112.081
46. 2817
47. 1128
48. 515977
49. 1.724
50. 15.803
51. 50.766
52. 118
53. 843.51
54. 35249
55. 5357
56. 8865.881
57. 6623052
58. 675.686
59. 6408360
60. 2552
61. 46601
62. 31.3
63. 3981
64. 232
65. 1001
66. 2906
67. 787.914
68. 5966.9286
69. $81.68

70. $1788.41	*79.* $787.45	*88.* $277.77
71. 8319.794	*80.* 449	*89.* 13758.06
72. 3485.166	*81.* 349000	*90.* $177.26
73. 5714.87	*82.* 4692197.934	*91.* 195.543
74. 1846.935	*83.* 240	*92.* $125.77
75. 1060.061	*84.* $7271.69	*93.* 779
76. 9.994 .	*85.* 1906521	*94.* 146.882
77. 0.39	*86.* $3593.40	*95.* 92760000 m.
78. $17.77	*87.* 45558897	*96.* 4. Rem. 11920 sq. m.

MISCELLANEOUS EXAMPLES.

97. 186	*101.* 202	*105.* $10075
98. 1717 m.	*102.* $1815.56	*106.* $1969499
99. $4.16	*103.* 44075	*107.* 32218478
100. 385 sq. m.	*104.* $15.10	*108.* 49940856

MULTIPLICATION.

Page 31–38.

19. 25812	*47.* 19558595	*69.* 792369569000
20. 188802	*48.* 10664.372	*70.* 3794.4
21. 431712	*49.* 84597978	*71.* 677760
23. 69978592	*50.* 2336	*72.* 19041
29. 7066836168	*51.* $1258	*73.* 15880580
30. 8854620071	*52.* 3053 m.	*76.* 2937600000
31. 3765330	*53.* 2814	*77.* 9039155000000
32. 14806800	*56.* 89657	*80.* 61543497600
33. 4401335	*57.* 84396000	*81.* 5621859600
34. 4078098	*58.* 36274800	*82.* 245108.5
40. 12474.72	*59.* 43782000	*83.* 3414.96
41. 2893704	*60.* 470	*84.* 3139972
42. 3140228	*61.* 6890000	*85.* $1227.45
43. 6141.72	*62.* 9846000	*86.* $104
44. 3655211	*63.* 8469700000	*87.* $473.86
45. 3197775	*64.* 87954000000	*88.* $266
46. 59807396	*68.* 25468765200	*89.* $1425