Promiscuous Examples.

1. Reduce $\frac{11781}{19635}$ to its lowest terms.
2. Find the value in integers of $\frac{8}{11}$ of a square mile.
3. $\frac{15}{16}$ of $83\frac{1}{3}$ is what part of $62\frac{1}{2}$ times $1\frac{7}{8}$?
4. A field 56 rods wide contains 25 acres 88 sq. rods. Find the cost of fencing it, at $66\frac{2}{3}$ cts. a rod.
5. A clerk earned $\frac{8}{9}$ of $\frac{9}{10}$ of $\$66\frac{2}{3}$ a month for $7\frac{1}{2}$ mo., and saved $\frac{7}{12}$ of it. How much did he save?

6. $\dfrac{18\frac{3}{4}}{83\frac{1}{3}} \times \dfrac{49\frac{1}{2}}{75\frac{5}{8}} \div \dfrac{5\frac{2}{5}}{7\frac{6}{7}} = $ what?

7. $19\frac{8}{9} - 7\frac{11}{12} - (8\frac{5}{16} - 3\frac{17}{24}) = $ what?
8. Reduce 2 days 11 hrs. 44 min. to the fraction of a week.
9. If $9\frac{3}{8}$ yds. of cloth cost $\$26\frac{1}{4}$, what would be the cost of $8\frac{5}{7}$ yds.?
10. If $27\frac{4}{5}$ bls. of flour cost $\$185\frac{1}{8}$, how many barrels could be bought for $\$124\frac{1}{6}$?
11. A man owning $\frac{7}{8}$ of a boat, sold $\frac{3}{4}$ of his share for $\$1785$. What was the value of the boat? What part had he left, and what was it worth?
12. A parlor is 24 ft. long, 18 ft. wide, and 12 ft. high. Find the total cost of plastering it, at $31\frac{1}{2}$ cts. a square yard, and of covering the floor with Brussels carpet ($\frac{3}{4}$ yd. wide), at $\$1.20$ a yard.

13. Find the amount of $\dfrac{7\frac{7}{8}}{12\frac{1}{4}}$ and $\dfrac{14\frac{2}{7}}{16\frac{2}{3}}$

14. What is the product of $\dfrac{9\frac{7}{9}}{7\frac{3}{5}}$ and $\dfrac{13\frac{4}{7}}{10\frac{10}{21}}$

15. A man built a house, paying $125\frac{1}{2}$ for masonry, $613\frac{3}{4}$ for brickwork, $587\frac{2}{5}$ for carpenter work, $180\frac{9}{10}$ for plastering, $165\frac{3}{20}$ for painting, $64\frac{6}{25}$ for grading, and $263\frac{3}{50}$ for other expenses. What was the entire cost?

16. If an engine can saw $2\frac{2}{3}$ ft. of logs in a minute, how long will it be in sawing 12 logs, each $13\frac{1}{8}$ ft. long?

17. A 45-gallon cask is $\frac{11}{12}$ full. If $13\frac{1}{8}$ gal. be drawn off, what part of the cask will remain filled?

18. If a pedestrian, by traveling $3\frac{3}{5}$ miles an hour, perform a journey in $8\frac{3}{4}$ hrs., in what time could he do it by traveling $4\frac{2}{8}$ miles an hour?

19. If a laborer can reap a field of grain in $4\frac{4}{5}$ days, how long would it take four laborers to reap a field $6\frac{1}{4}$ times as large?

20. Divide the product of $6\frac{3}{5}$ times $8\frac{8}{9}$ by the sum of $\frac{4}{15}$ and $\frac{8}{25}$.

21. Divide the product of $5\frac{5}{9}$ and $8\frac{1}{3}$ by their difference.

22. Four men performed a certain work for $1000. The first received $240\frac{7}{10}$, the second $250\frac{12}{25}$, the third $260\frac{11}{50}$. What did the fourth receive?

23. In a partnership, A furnished $\frac{8}{21}$ of the capital, B $\frac{5}{14}$ of it, and C the remainder, which was $4125. What was their entire capital?

24. Reduce 4 oz. 13 pwt. 8 gr. to the fraction of a pound.

25. If $18\frac{3}{4}$ tons of coal cost $86\frac{1}{4}$, what will be the cost of $16\frac{2}{8}$ tons?

26. If $5\frac{3}{4}$ cords of wood cost $38\frac{1}{3}$, how many cords can be bought for $62\frac{1}{2}$?

27. How many sods 20 in. long and 15 in. wide

would be required for a lawn $33\frac{1}{8}$ ft. wide and $97\frac{1}{2}$ ft. long?

28. In an orchard $\frac{3}{8}$ are apple trees, $\frac{2}{5}$ pear trees, $\frac{5}{24}$ peach trees, and the remainder, which is 42, plum trees. What is the number of peach trees?

29. A stick of timber was 18 ft. 9 in. long, and 18 in. square; $\frac{4}{15}$ of it was sawn off, and the remainder sold at $25\frac{3}{5}$ cts. a cubic foot. What was received for it?

30. A stock of goods costing $\$3125\frac{1}{4}$ caught fire. $\frac{2}{9}$ of it was destroyed; $\$368\frac{7}{20}$ worth was stolen; and the remainder, being damaged, was sold for $\frac{3}{4}$ of its value. How much was paid for it?

31. What number added to $\frac{7}{9}$ of $18\frac{3}{4}$ will equal $\frac{9}{10}$ of $41\frac{2}{8}$?

32. What number subtracted from $\frac{7}{10}$ of $142\frac{6}{7}$ will leave $\frac{5}{6}$ of $66\frac{2}{3}$?

33. What number multiplied by $62\frac{1}{2}$ will produce $3333\frac{1}{3}$?

34. What number divided by $25\frac{2}{25}$ will give $83\frac{1}{3}$ for a quotient?

35. A field is 95 rods long, and contains 46 acres 50 sq. rods. Find the cost of the fence surrounding it, at $\$\frac{7}{8}$ a rod.

36. I own $\frac{6}{7}$ of a farm, and sell $\frac{3}{5}$ of my share for $\$1530$. What is my remaining interest worth?

37. Find the difference in the cost of carpeting two rooms, one 16 ft. wide by 25 ft. long, the other 17 ft. wide by 24 ft. long, with Brussels carpet, at $\$1.12\frac{1}{2}$ a yard.

38. A farmer having $\$380\frac{5}{8}$, gave $\frac{5}{7}$ of it for sheep, at $\$3\frac{5}{8}$ a head. How many did he buy?

39. A sum of money was divided among five persons. A received $\frac{2}{9}$, B $\frac{5}{18}$, C $\frac{7}{24}$, D $\frac{5}{36}$, and E the remainder, which was $25. Find the entire sum, and B's share.

40. Two men built $41\frac{2}{3}$ rods of fence in $5\frac{1}{2}$ days. At the same rate, how many rods could three men build in $4\frac{2}{5}$ days?

41. If a pedestrian can walk $39\frac{1}{16}$ miles in $10\frac{5}{12}$ hrs., in how many hours can he walk $31\frac{1}{2}$ miles?

42. A trader bought $147\frac{6}{7}$ cords of wood, at $$5\frac{1}{4}$ a cord, and gave in exchange horses, at $$64\frac{11}{16}$ apiece. How many horses were required?

43. Multiply together $\dfrac{5}{8\frac{1}{3}}$ $\dfrac{7\frac{1}{9}}{11}$ $\dfrac{6\frac{2}{3}}{8\frac{3}{4}}$ $9\frac{5}{8}$ and $\dfrac{\frac{9}{16}}{1\frac{3}{5}}$.

44. A and B are $81\frac{1}{2}$ miles apart, and travel toward each other, A going $3\frac{3}{4}$ miles an hour, and B $4\frac{2}{5}$ miles. In how many hours will they meet, and how far will each have traveled?

45. A speculator built a block of stores on a lot valued at $5000, paying $$4521\frac{3}{4}$ for brick-work; $$2978\frac{4}{5}$ for lumber; $$3142\frac{9}{10}$ for labor; and $$3356\frac{11}{20}$ for other expenses. He sold the block for $20000. Find his gain.

46. If $9\frac{3}{8}$ acres produce $151\frac{7}{8}$ bu. of wheat, how many bushels would $13\frac{8}{9}$ acres produce?

47. If $14\frac{3}{10}$ acres yield $822\frac{1}{4}$ bu. of corn, how many acres would yield $1916\frac{2}{3}$ bu.?

48. A bookkeeper pays $$18\frac{3}{4}$ a month for rent, which is $\frac{9}{40}$ of his salary. What is his yearly salary?

49. A merchant exchanged $18\frac{3}{4}$ bls. of flour, worth $$3\frac{3}{5}$ a barrel, for hay at $$13\frac{1}{2}$ a ton. How many tons of hay did he receive?

50. Sold 1000 bu. of grain for $375\frac{3}{10}$, thereby losing $74\frac{17}{25}$. Had I sold it at a gain of $50\frac{1}{50}$, how much per bushel would I have received?

51. A owns $62\frac{1}{2}$ acres, B $37\frac{1}{2}$ acres. If each sell $\frac{12}{25}$ of his land to the other, how many acres more will A have than B?

52. How many rugs 5 ft. 6 in. long and 2 ft. 8 in. wide will cover the floor of a drawing-room 33 ft. long and 24 ft. wide?

53. A pasture is 36 rods wide, and contains 10 acres 128 sq. rods. It is to be surrounded by a fence five boards high, each board being 6 in. in width. Find the value of the lumber, at $16.66\frac{2}{3}$ per thousand feet.

54. What part of a day is 5 hrs. 37 min. 30 sec.?

55. A trader gained $\frac{8}{10}$ of his capital in one speculation, and $\frac{9}{25}$ of that amount in another; but in a third he lost $\frac{5}{16}$ of all his money, and found that he had $1823\frac{1}{4}$ remaining. What was his original capital?

56. By selling a lot of groceries for $94\frac{3}{5}$, I made $\frac{3}{8}$ of the cost. I paid for them with apples, at $2\frac{8}{10}$ a barrel, and $34\frac{8}{10}$ in money. How many barrels of apples did I give?

57. A pile of wood is 85 ft. 4 in. long, 12 ft. wide, and 11 ft. 8 in. high. Find its value, at $4\frac{4}{5}$ a cord.

58. Bought a lot of marble for $240\frac{1}{2}$, which was $\frac{2}{15}$ less than its value. I sold it for $\frac{6}{25}$ more than its value. What was my gain?

59. Find the cost of 10 ℥ 6 ʒ 1 Э 4 gr. of opium at $10\frac{1}{2}$ a pound.

60. Find the value in integers of $\frac{4}{25}$ year ($365\frac{1}{4}$ days).

61. Sold $131\frac{1}{4}$ bu. of wheat, which was $\frac{7}{15}$ of what I had remaining. What was the entire crop worth, at $83\frac{1}{8}$ cts. a bushel?

62. $\dfrac{3\frac{2}{5}+3\frac{4}{15}}{9\frac{7}{12}-4\frac{5}{8}}\times\dfrac{12\frac{2}{5}-4\frac{9}{10}}{2\frac{3}{8}+3\frac{11}{24}}\div\dfrac{2\frac{2}{7}\times1\frac{9}{16}}{47\frac{1}{2}\div6\frac{1}{4}}=$ what?

63. Find the total cost of excavating a cellar 45 ft. 4 in. long, 23 ft. 3 in. wide, and 7 ft. 6 in. deep, at $\$\frac{18}{125}$ a cubic yard, and of walling the sides with limestone $2\frac{1}{4}$ ft. thick, at $\$4\frac{2}{5}$ a perch. (*Masons' measure.*)

NOTE.—*Stonemasons measure from corner to corner around the foundation.*

64. A stock-dealer sold 128 sheep at $\$3\frac{4}{5}$ apiece, and invested $\frac{9}{16}$ of the money in hogs at $\$5\frac{7}{10}$ each. How many hogs did he buy?

65. If a lot $51\frac{1}{5}$ rods long and $32\frac{1}{2}$ rods wide produce $87\frac{1}{2}$ bu. of potatoes to the acre, what would be the value of the crop at $\$\frac{3}{4}$ a bushel?

66. Multiply the sum of $18\frac{3}{4}$ and $11\frac{9}{20}$ by their difference, and divide the product by $5\frac{21}{25}$.

67. I lent A $\frac{13}{40}$ of my money, and B $\frac{2}{9}$ of the remainder. If B received $\$262\frac{1}{2}$ less than A, how much money had I left?

68. Owning a certain quantity of land, I sold $\frac{12}{85}$ of it for $\$2247\frac{3}{4}$, at $\$56\frac{1}{4}$ an acre. How many acres did I own at first?

69. The fencing of a field whose area is $2032\frac{3}{4}$ sq. rods cost $\$149\frac{9}{25}$. If the field is in the form of a rectangle, $34\frac{3}{5}$ rods wide, what was the cost per rod?

70. Two ships start from the same point and sail in opposite directions, one at the rate of $11\frac{11}{12}$ miles per hour, the other at the rate of $13\frac{14}{15}$ miles per hour. How far apart will they be at the end of $12\frac{1}{2}$ hrs.?

71. Two boys, C and D, picked a lot of berries, for which they received $\$11\frac{9}{10}$. C worked $3\frac{1}{8}$ days, and picked $12\frac{1}{2}$ bu. D worked as many days as C picked bushels per day. What amount did each receive?

72. A owes B $\$64\frac{4}{5}$, which is $2\frac{4}{7}$ of what he owes C, or $1\frac{4}{5}$ of what he owes D. How much does he owe altogether?

73. What would be the cost of 15 gal. 3 qts. 1 gill of brandy, at $3.84 per gallon?

74. Paid $\$64\frac{3}{5}$ per acre for a farm, and then sold $\frac{11}{25}$ of it at cost, for $\$1776\frac{1}{2}$. How many acres were there in the entire farm?

75. A speculator bought $\frac{25}{32}$ of a cargo of wheat. He sold $\frac{33}{50}$ of his share to one man, and the remainder, which was $1195\frac{5}{16}$ bu., to another. How many bushels did the cargo contain?

76. The circumference of the fore wheel of a wagon is $10\frac{1}{8}$ ft., of the hind wheel, $12\frac{3}{4}$ ft. How many more revolutions will the former make than the latter in going a distance of $5\frac{19}{88}$ miles?

77. Two cities, A and B, are situated upon the same stream. A steamer leaves A for B, sailing at the rate of $9\frac{7}{10}$ miles per hour, while another leaves B for A, sailing at the rate of $8\frac{3}{4}$ miles per hour. If they meet in $24\frac{8}{9}$ hrs., what is the distance from A to B?

78. A cattle-dealer paid $327⅗ for sheep, at $3⅘ apiece. But 7 having died, at what price per head must he sell the remainder to sustain no loss?

79. A granite base for a monument is 3 ft. 9 in. square and 1 ft. 4 in. high. Find its value, at $6⅖ a cubic foot.

80. A speculator bought a lot of hardware for $\frac{14}{16}$ of its value, and sold it for $\frac{11}{12}$ of its value, thereby losing $32½. How much did he *pay* for it?

81. A merchant paid $247½ for apples, at 2\frac{16}{25}$ a barrel, and sold $\frac{8}{15}$ of them at a profit of $$\frac{9}{25}$ per barrel. How much did he receive for what he sold?

82. A pasture is 49½ rods long, and rectangular in form, with an area of 13$\frac{49}{80}$ acres. It is surrounded by a fence 5 boards high, each board being 6 in. in width. What was the cost of the lumber at $1⅗ per hundred feet?

83. Six loads of hay weighed 8½ tons. The first five weighed respectively 1⅖ tons, 1$\frac{8}{10}$ tons, 1$\frac{13}{20}$ tons, 1$\frac{12}{25}$ tons, and 1$\frac{21}{50}$ tons. What was the weight of the sixth load?

84. On counting their money, it was found that B's money was $\frac{23}{16}$ of A's, and that C had $\frac{12}{25}$ as much as both of the others. If C had 6⅘ more than A, how much had B?

85. If one edge of a cubical block of granite is 2 ft. 3 in. in length, what would be the cost of polishing five of its faces, at 1\frac{7}{25}$ a square foot?

86. A man can do a piece of work in 12⅞ days. If his son works $\frac{11}{16}$ as fast, how long would it take both to complete the work?

87. A earns $27\frac{1}{2}$ cts. an hour, and B $16\frac{1}{4}$ cts. How much will both have earned when B has earned $\$12\frac{12}{25}$?

88. How many yards of cloth, at $\$1\frac{7}{8}$ per yard, must be given for 8 bu. 2 pks. 5 qts. 1 pt. plums, at $\$2\frac{2}{5}$ a bushel?

89. What was the cost of $37\frac{1}{2}$ acres of woodland, if $\$67\frac{1}{2}$ was lost by selling $20\frac{1}{4}$ acres for $\$1282\frac{1}{2}$?

90. A can do a piece of work in $4\frac{4}{5}$ days; B, a piece $3\frac{3}{4}$ times as large in $16\frac{2}{8}$ days; C, a piece $3\frac{1}{8}$ times as large as A's in $12\frac{1}{2}$ days. In what time, by working together, can they do a piece $8\frac{3}{4}$ times as large as the first?

91. A jeweler paid $\$195\frac{3}{4}$ for gold, at $\$1\frac{1}{5}$ a penny-weight, and made it into rings weighing $3\frac{5}{8}$ pwt. each. If he sold the rings at $\$5\frac{1}{2}$ apiece, what was his gain?

92. A owns $82\frac{3}{16}$ acres of land, B $11\frac{9}{40}$ acres less, C owns $74\frac{9}{80}$ acres less than A and B combined. How many acres have B and C together?

93. A man divided $\frac{5}{8}$ of his farm between his two sons, giving to the younger $\frac{7}{8}$ as much as to the elder. If the elder received $12\frac{1}{2}$ acres more than the other, how many acres were there in the entire farm?

94. A travels $187\frac{1}{2}$ miles in $5\frac{5}{8}$ days, B $206\frac{1}{4}$ miles in $6\frac{3}{5}$ days. How far apart will they be at the end of 12 days, if they travel in the same direction? If they travel in opposite directions?

95. Two cities are situated upon the same road, 500 miles apart. An express train running at the rate of $41\frac{2}{8}$ miles an hour, and a freight traveling $18\frac{3}{4}$ miles an hour, start at the same time from one city to the other. How far from the latter will the freight be when the express arrives?

96. A owned $\frac{5}{8}$ of a factory, and sold $\frac{3}{4}$ of his share to B, who sold $\frac{1}{2}$ of his share to C, who sold $\frac{2}{8}$ of what he bought to D. What part of the factory did each then own?

97. If my money be multiplied by $\frac{14}{15}$, and $\$\frac{3}{8}$ be added to the product, and $\$\frac{24}{25}$ be subtracted from the sum, and the remainder divided by $\frac{48}{50}$, the result will be $\$24$. How much money have I?

98. Divide the product of $\dfrac{6\frac{5}{12}}{6\frac{1}{9}}$ and $\dfrac{10\frac{2}{3}}{12\frac{4}{5}}$ by the quotient of $\dfrac{7\frac{7}{8}}{15\frac{3}{10}}$ divided by $\dfrac{11\frac{2}{8}}{6\frac{3}{8}}$

99. C and D dug a ditch for $\$20\frac{1}{4}$; C worked $4\frac{1}{2}$ days and dug $16\frac{1}{5}$ rods; D worked as many days as C dug rods per day. What did each receive?

100. A merchant charged $\$82\frac{1}{2}$ for flour, at $\$4\frac{2}{5}$ a barrel, which was $\frac{11}{52}$ of what he received for what he had remaining, at $\$4\frac{4}{5}$ a barrel. How many barrels did he sell altogether?

101. Out of a shipment of merchandise valued at $\$2604\frac{4}{5}$, $\frac{1}{4}$ was destroyed by fire, $\frac{2}{11}$ of the remainder was thrown overboard, and the balance, being damaged, was sold for $\frac{5}{8}$ of its value. What was received for it?

102. A lodge-room is 48 ft. 9 in. long, 37 ft. 6 in. wide, and 18 ft. high. It is to be plastered at $\$\frac{6}{25}$ a square yard, and the floor is to be covered with Brussels carpet ($\frac{3}{4}$ yd. wide), at $\$1\frac{1}{5}$ a yard. What is the entire bill?

ANSWERS.

ARTICLE 129.

1.	$\frac{3}{5}$	26.	$9\frac{3}{8}$ C.
2.	174 A. 87 sq. rds. 8 sq. yds. 2 sq. ft. 36 sq. in.	27.	1560 sods.
		28.	45 peach trees.
3.	$\frac{2}{5}$	29.	$7.92.
4.	$172.	30.	$1546\frac{4}{5}$
5.	$315.	31.	$22\frac{11}{12}$
6.	$\frac{3}{14}$	32.	$44\frac{4}{9}$
7.	$6\frac{41}{48}$	33.	$53\frac{1}{8}$
8.	$\frac{16}{45}$ wk.	34.	2090.
9.	$24\frac{2}{5}$	35.	$302\frac{3}{4}$
10.	$18\frac{5}{8}$ bls.	36.	$1020.
11.	$2720; $\frac{7}{32}$; $595.	37.	$1.33\frac{1}{8}$
12.	$127.20.	38.	75 sheep.
13.	$1\frac{1}{2}$	39.	Sum, $360; B's, $100.
14.	$1\frac{2}{8}$	40.	50 rds.
15.	$2000.	41.	$8\frac{2}{5}$ hrs.
16.	1 hr.	42.	12 horses.
17.	$\frac{5}{8}$	43.	1.
18.	$6\frac{3}{4}$ hrs.	44.	10 hrs.; A, $37\frac{1}{2}$ mi.; B, 44 mi.
19.	$7\frac{1}{2}$ da.		
20.	100.	45.	$1000.
21.	$16\frac{2}{8}$	46.	225 bu.
22.	$248\frac{3}{5}$	47.	$33\frac{1}{8}$ A.
23.	$15750.	48.	$1000.
24.	$\frac{7}{18}$ lb.	49.	5 T.
25.	$76\frac{2}{8}$	50.	$\frac{1}{2}$

51.	1 A.	77.	$459\frac{1}{6}$ mi.
52.	54 rugs.	78.	$\$3\frac{9}{10}$
53.	$115.50.	79.	$\$123\frac{3}{4}$
54.	$1\frac{5}{6}$ da.	80.	$\$142\frac{1}{2}$
55.	$1500.	81.	$150
56.	15 bls.	82.	$\$123\frac{21}{50}$
57.	$448.	83.	$1\frac{1}{4}$ T.
58.	$\$103\frac{3}{5}$	84.	B had $\$57\frac{1}{2}$
59.	$\$9\frac{9}{20}$	85.	$\$32\frac{2}{5}$
60.	58 da. 10 hrs. 33 min. 36 sec.	86.	$7\frac{1}{8}$ da.
		87.	$33.60.
61.	$\$343\frac{3}{4}$	88.	$11\frac{1}{10}$ yds.
62.	$3\frac{21}{25}$	89.	$2500.
63.	$\$453\frac{88}{80}$	90.	$12\frac{1}{2}$ da.
64.	48 hogs.	91.	$\$51\frac{3}{4}$
65.	$\$682\frac{1}{2}$	92.	150 A.
66.	$37\frac{3}{4}$	93.	160 A.
67.	$\$787\frac{1}{2}$	94.	25 mi. ; 775 mi.
68.	$116\frac{11}{20}$	95.	275 mi.
69.	$\$\frac{4}{5}$	96.	A, $\frac{5}{24}$; B, $\frac{5}{16}$; C, $\frac{5}{48}$; D, $\frac{5}{24}$
70.	$323\frac{1}{8}$ mi.		
71.	C, $\$5\frac{3}{5}$; D, $\$6\frac{3}{10}$	97.	$\$22\frac{1}{2}$
72.	$126.	98.	$3\frac{1}{9}$
73.	$60.60.	99.	C, $\$11\frac{1}{4}$; D, $9.
74.	$62\frac{1}{2}$ A.	100.	100 bls.
75.	4500 bu.	101.	$999.
76.	560 revolutions.	102.	$\$456\frac{11}{20}$