For Judy and Joan—fifth-grade math buddies and lifelong friends
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**Introduction**

There are 180 problems inside this book and 180 days in the average school year. Coincidence? Not in the least. These specially written problems of the day—an eclectic mix of computation, problem solving, brainteasers, and fascinating facts—will help hone students’ fraction and decimal skills all school-year long.

**How to Use This Book**

We’ve created the “quick and clever” problems inside this book. Now it’s up to you to get them to your students. You may want to copy each page, cut apart the activities, and hand one to your students each day. You may also want to copy them onto the blackboard, or make an overhead transparency of each page.

Each problem (or set of problems) should take the average student about five minutes to complete. Some students may take a bit longer, while others may drop their pencils even before you finish explaining the problem. No matter. Just keep in mind that this book was crafted with the following goals in mind:

- To reinforce skills and foster a deeper appreciation of the wonders of fractions and decimals
- To engage all students with entertaining, age-appropriate material
- To make solid connections with the content standards developed by the National Council of Teachers of Math (NCTM)
1. Which fraction has a numerator of 3?
   \[
   \frac{1}{3}, \frac{3}{4}, \frac{33}{100}
   \]

2. Which fraction has a denominator of 10?
   \[
   \frac{10}{7}, \frac{7}{10}, \frac{10}{100}
   \]

3. Which fraction is proper?
   \[
   \frac{22}{33}, \frac{33}{22}, \frac{3}{2}
   \]

4. Which fraction is improper?
   \[
   \frac{5}{6}, \frac{5}{10}, \frac{8}{5}
   \]
5. Which improper fraction has a numerator of 9?

\[
\begin{array}{ccc}
\frac{12}{9} & \frac{9}{14} & \frac{9}{3}
\end{array}
\]

6. Which proper fraction has a denominator of 5?

\[
\begin{array}{ccc}
\frac{3}{5} & \frac{5}{8} & \frac{10}{5}
\end{array}
\]

7. Which of these is a mixed number?

\[
\begin{array}{ccc}
\frac{4}{3} & \frac{4}{3} & \frac{4}{33}
\end{array}
\]
Name: ________________________________

8. Which mixed number is equal to $\frac{6}{5}$?

\[
\begin{array}{c}
5 \frac{1}{5} \\
5 \\
1 \frac{1}{5}
\end{array}
\begin{array}{c}
5 \frac{6}{6} \\
6
\end{array}
\]

Name: ________________________________

9. Circle the correct letter. A mixed number is made up of

a) one whole number.
b) one fraction.
c) two whole numbers.
d) a whole number and a fraction.

Name: ________________________________

10. Which of these are like fractions?

\[
\begin{array}{c}
\frac{5}{7} \\
\frac{7}{7} \\
\frac{7}{5} \\
\frac{1}{8} \\
\frac{8}{7}
\end{array}
\]
11. Which of these are like fractions?

\[
\begin{array}{cccc}
\frac{2}{3} & \frac{3}{2} & \frac{1}{3} & \frac{3}{4} & \frac{10}{3}
\end{array}
\]

12. What is the reciprocal of \(\frac{22}{44}\)?

\[
\begin{array}{ccc}
\frac{2}{4} & \frac{44}{22} & \frac{4}{2}
\end{array}
\]

13. What is the reciprocal of \(\frac{4}{5}\)?

\[
\begin{array}{ccc}
\frac{5}{4} & \frac{8}{10} & \frac{1}{5}
\end{array}
\]
14. What fraction of a year is one week?

15. If \( \frac{1}{2} \) of your class has to stay after school, what fraction gets to go home?

16. In baseball, what fraction of the bases is home plate?
17. Clumsy Carl crushed \( \frac{10}{12} \) of his crackers.

What fraction of his crackers weren’t crushed?

18. What fraction of the shapes are squares?

\[
\begin{array}{cccc}
\frac{4}{4} & \frac{4}{2} & \frac{1}{4} & \\
\end{array}
\]

19. What fraction of the United States were original colonies?
20. Generous George gave his baby brother \( \frac{2}{5} \) of his baseball-card collection.

What fraction of the collection did George keep?

21. Which fraction of the rectangle is shaded?

\[
\begin{array}{ccc}
1/2 & 1/3 & 2/3 \\
\end{array}
\]

22. What fraction of a yard is a foot?
23. You've spent $\frac{3}{4}$ of your allowance on comic books.

What fraction do you have left to spend?

24. Sammy snoozed for $\frac{6}{10}$ of an hour.

What fraction of the hour was Sammy awake?

25. What fraction of your senses is sight?

What fraction of the book did Benny read?

What fraction of the book does he have left to read?

27. On the American flag, what fraction of the stripes are red?

28. Felix Fedora has 10 blue caps, 13 yellow caps, 8 red caps, and 7 purple caps.

What fraction of his cap collection is blue?
29. What fraction of a foot is 8 inches? Express your answer in lowest terms.

30. Which of these is in lowest terms?

\[ \frac{13}{32}, \frac{6}{72}, \frac{5}{120} \]

31. Which of these is in lowest terms?

\[ \frac{9}{6}, \frac{6}{9}, \frac{1}{9} \]
32. Which of these is in lowest terms?

\[
\begin{array}{ccc}
\frac{3}{27} & \frac{7}{23} & \frac{7}{21}
\end{array}
\]

33. If you sleep for 8 hours, what fraction of the day do you snooze?
Express your answer in lowest terms.

34. What fraction of your fingers are thumbs?
Express your answer in lowest terms.

35. What fraction of an hour is 10 minutes?
Express your answer in lowest terms.
36. What fraction of a dozen eggs is left when you eat 6 eggs?
Express your answer in lowest terms.

37. What fraction of the months begin with the letter J?
Express your answer in lowest terms.

38. What fraction of the kids on The Brady Bunch were boys? Express your answer in lowest terms.

39. What fraction of a century is 25 years?
Express your answer in lowest terms.
Name: ________________________________

40. What fraction of a ton is 500 pounds? (One ton is equal to 2,000 lbs.) Express your answer in lowest terms.

41. What fraction of the alphabet are vowels (counting Y)? Express your answer in lowest terms.

42. Simplify:

\[
\frac{360}{45} = \frac{54}{72} = \frac{140}{175} =
\]
43. Circle the correct letter. For fractions to be equivalent, they must
   a) be proper.
   b) be reduced.
   c) have the same value.
   d) be identical.

44. If the fractions are equivalent, the statement is true.
   If not, the statement is false.
   The dust in your house is mostly dead skin. True or false?
   \[
   \frac{2}{5} = \frac{4}{10}
   \]

45. If the fractions are equivalent, the statement is true.
   If not, the statement is false.
   A caterpillar has 4,000 muscles. True or false?
   \[
   \frac{1}{3} = \frac{4}{12}
   \]
46. If the fractions are equivalent, the statement is true. 
   If not, the statement is false.
   George Washington had wooden teeth. True or false?
   \[
   \frac{1}{6} = \frac{3}{24}
   \]

47. If the fractions are equivalent, the statement is true. 
   If not, the statement is false.
   It's impossible to sneeze with your eyes open. True or false?
   \[
   \frac{11}{12} = \frac{66}{72}
   \]

48. If the fractions are equivalent, the statement is true. 
   If not, the statement is false.
   Monday is the longest day of the week. True or false?
   \[
   \frac{2}{3} = \frac{6}{12}
   \]
Equivalent Fractions

49. If the fractions are equivalent, the statement is true. If not, the statement is false.
   French fries were invented in the United States. True or false?
   \[
   \frac{4}{6} = \frac{6}{12}
   \]

50. If the fractions are equivalent, the statement is true. If not, the statement is false.
   A crocodile can’t stick out its tongue. True or false?
   \[
   \frac{12}{44} = \frac{36}{132}
   \]

51. If the fractions are equivalent, the statement is true. If not, the statement is false.
   Some snails can sleep for three years at a time. True or false?
   \[
   \frac{5}{8} = \frac{15}{24}
   \]
52. If the fractions are equivalent, the statement is true. If not, the statement is false.

Gorillas can’t swim. True or false?

\[
\frac{7}{9} = \frac{14}{18}
\]

53. If the fractions are equivalent, the statement is true. If not, the statement is false.

When it’s summer in the United States, it’s winter in Australia. True or false?

\[
\frac{13}{17} = \frac{39}{51}
\]

54. Insert the proper sign: > or <

\[
\frac{1}{2} \quad \frac{3}{4} \quad \frac{1}{3} \quad \frac{1}{2}
\]
55. Insert the proper sign: > or <

\[
\frac{3}{3} \quad \frac{2}{4} \quad \frac{5}{5} \quad \frac{5}{16}
\]

56. Insert the proper sign: > or <

\[
\frac{3}{15} \quad \frac{30}{15} \quad \frac{7}{7} \quad \frac{50}{7}
\]

57. Insert the proper sign: > or <

\[
\frac{10}{5} \quad \frac{8}{2} \quad \frac{21}{7} \quad \frac{63}{14}
\]
Comparing Fractions

58. Circle the correct letter. In the sequence $\frac{1}{5}, \frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \ldots$, the value of the fractions
   a) increases.
   b) decreases.
   c) stays the same.
   d) none of the above.

Comparing Fractions

59. Circle the correct letter. In the sequence $\frac{1}{16}, \frac{1}{8}, \frac{1}{4}, \frac{1}{2}, \ldots$, the value of the fractions
   a) increases.
   b) decreases.
   c) stays the same.
   d) none of the above.

Ordering Fractions

60. Put the fractions in order from smallest to largest.

\[
\frac{3}{5}, \frac{1}{8}, \frac{5}{10}
\]
61. Put the fractions in order from largest to smallest.

\[
\frac{22}{33}, \frac{5}{4}, \frac{1}{17}
\]

62. Put the fractions in order from smallest to largest.

\[
\frac{15}{60}, \frac{9}{900}, \frac{9}{10}
\]

63. Solve. Express answers in lowest terms.

\[
\frac{1}{5} + \frac{2}{5} = \quad \frac{2}{3} + \frac{4}{3} =
\]
Adding Fractions

Name: ____________________________

64. Solve. Express answers in lowest terms.

\[ \frac{3}{10} + \frac{2}{10} = \quad \frac{4}{3} + \frac{3}{6} = \]

65. Solve. Express answers in lowest terms.

\[ \frac{3}{12} + \frac{6}{66} = \quad \frac{5}{25} + \frac{1}{7} = \]

66. Solve. Express answers in lowest terms.

\[ \frac{14}{12} + \frac{1}{3} = \quad \frac{1}{2} + \frac{1}{4} = \]
Name: ____________________________

67. Solve. Express answers in lowest terms.

\[
\frac{11}{22} + \frac{4}{16} + \frac{1}{4} = \frac{5}{5} + \frac{4}{4} + \frac{76}{76}
\]

Name: ____________________________

68. Solve. If the answer is a whole number, the statement is false. If the answer is a mixed number, the statement is true.

Mark Twain invented suspenders. True or false?

\[
1\frac{4}{6} + \frac{2}{3} =
\]

Name: ____________________________

69. Solve. Express answers in lowest terms.

\[
\frac{5}{32} - \frac{1}{32} = \frac{75}{100} - \frac{25}{100}
\]
Name: __________________________________________

70. Solve. Express answers in lowest terms.

\[
\frac{7}{7} - \frac{6}{7} = \frac{2}{3} - \frac{1}{5} =
\]

Name: __________________________________________

71. Solve. Express answers in lowest terms.

\[
\frac{4}{8} - \frac{2}{4} = \frac{1}{2} - \frac{1}{3} =
\]

Name: __________________________________________

72. Solve. Express answers in lowest terms.

\[
\frac{6}{8} - \frac{3}{4} = \frac{1}{3} - \frac{2}{7} =
\]
Name: __________________________________________

73. Solve. If the answer is a whole number, the statement is false. If the answer is a mixed number, the statement is true.

William Henry Harrison died one month after becoming president of the United States. True or false?

\[
\frac{35}{5} - \frac{2}{5} = 
\]

Name: __________________________________________

74. Solve. Express answers in lowest terms.

\[
\frac{11}{16} \times \frac{3}{22} = \quad \frac{25}{100} \times 0 = 
\]

Name: __________________________________________

75. Solve. Express answers in lowest terms.

\[
\frac{12}{24} \times 2 = \quad \frac{6}{48} \times \frac{3}{5} = 
\]
Name:__________________________________________________________________________________

76. Solve. If the answer is a whole number, the statement is false.
    If the answer is a mixed number, the statement is true.
    America’s first toll bridge charged for animals to cross—people
got to go for free. True or false?
    \[
    1 \frac{1}{4} \times 7 = \]

Name:__________________________________________________________________________________

77. Solve. If the answer is a whole number, the statement is false.
    If the answer is a mixed number, the statement is true.
    The Popsicle was first called an epsicle, after its inventor Frank
    Epperson. True or false?
    \[
    2 \times 1 \frac{1}{4} = \]

Name:__________________________________________________________________________________

78. Solve. If the answer is a whole number, the statement is false.
    If the answer is a mixed number, the statement is true.
    The Panama Canal is really in Mexico. True or false?
    \[
    \frac{75}{21} \times \frac{7}{25} = \]
Name: ____________________________________________

79. Solve. Express answers in lowest terms.

\[
60 \times \frac{1}{3} = \quad 2 \frac{4}{7} \times \frac{1}{2} =
\]

Name: ____________________________________________

80. Solve. If the answer is a whole number, the statement is false.
If the answer is a mixed number, the statement is true.

At first, American Independence Day was celebrated on April 1.
True or false?

\[
6 \times \frac{2}{3} =
\]

Name: ____________________________________________

81. Solve. If the answer is a whole number, the statement is false.
If the answer is a mixed number, the statement is true.

The most common last name in the United States is Williams.
True or false?

\[
\frac{7}{8} \times \frac{8}{7} =
\]
82. Solve. If the answer is a whole number, the statement is false. If the answer is a mixed number, the statement is true.

The first Thanksgiving meal was a breakfast. True or false?

\[
\frac{2}{3} \div \frac{6}{11} =
\]

83. Solve. If the answer is a whole number, the statement is false. If the answer is a mixed number, the statement is true.

Tiger Woods’s first name is really Eldrick. True or false?

\[
\frac{3}{6} \div \frac{3}{15} =
\]

84. Solve. If the answer is a whole number, the statement is false. If the answer is a mixed number, the statement is true.

Martha Washington was pictured on the one-dollar bill in 1866. True or false?

\[
\frac{1}{6} \div \frac{1}{10} =
\]
85. Solve. If the answer is a whole number, the statement is false. If the answer is a mixed number, the statement is true.

Chocolate was once used as money in South America. True or false?

\[
\frac{4}{12} \div \frac{1}{8} =
\]

86. Solve. Express answers in lowest terms.

\[
\frac{10}{5} \div \frac{1}{2} = \quad \frac{3}{4} \div \frac{12}{13} =
\]

87. Express these fractions as decimals.

\[
\frac{1}{2} = \quad \frac{3}{4} =
\]
88. Express these fractions as decimals.

\[
\frac{2}{10} = \underline{\hspace{2cm}} \\
\frac{8}{100} = \underline{\hspace{2cm}}
\]

89. True or false?

\[
\frac{1}{4} = 0.25 \quad \frac{2}{5} = 0.04 \quad \frac{3}{6} = 0.5
\]

\underline{\hspace{2cm}} \underline{\hspace{2cm}} \underline{\hspace{2cm}}

90. Which is greater? Circle the correct answer.

\[
\frac{1}{2} \text{ or } 0.05 \quad \frac{6}{3} \text{ or } 2.02 \quad \frac{3}{4} \text{ or } 0.075
\]
91. In each decimal, circle the numeral that is in the tenths place.
   a) 43.21
   b) 6.07
   c) 5.406

92. In each decimal, circle the numeral that is in the hundredths place.
   a) 3.201
   b) 663.489
   c) 1,498.635

93. In each decimal, circle the numeral that is in the thousandths place.
   a) 0.456
   b) 2,007.3049
   c) 9,663.062
94. In each decimal, circle the numeral that is in the ten-thousandths place.
   a) 0.32047
   b) 10,000.00023
   c) 127,389.44456

95. In each decimal, circle the numeral that is in the tenths place.
   a) 1,001.488
   b) 732,006.955
   c) 42.0722

96. In each decimal, circle the numeral that is in the hundredths place.
   a) 1,965.343
   b) 1,969.321
   c) 1,870.1965
97. In each decimal, circle the numeral that is in the tenths place.
   a) 2,002.59183
   b) 2,002,591.837
   c) 20,025.91837

98. In each decimal, circle the numeral that is in the thousandths place.
   a) 0.14921
   b) 3,300.1976
   c) 8,000.0050

99. In each decimal, circle the numeral that is in the ten-thousandths place.
   a) 0.989455
   b) 2.00072
   c) 1,264,999.99832
100. Put the decimals in order from largest to smallest.

\[ 0.1 \quad 0.02 \quad 0.01 \quad 0.2 \quad 1.2 \]

101. Put the decimals in order from largest to smallest. The most popular pet name in the U.S. is next to the largest decimal. Which name is it?

\[ 0.709 \quad 0.087 \quad 0.78 \quad 0.87 \quad 0.0009 \]

Lady \quad Bear \quad Sam \quad Max \quad Smokey

102. Put the decimals in order from largest to smallest. The most popular dog breed in the U.S. is next to the smallest decimal. Which dog breed is it?

\[ 0.000121 \quad 0.00212 \quad 0.00121 \quad 0.000212 \quad 0.0121 \]

Labrador retriever \quad Dachshund \quad German shepherd \quad Golden retriever \quad Beagle
103. What is the fraction equivalent?

0.6 =

0.06 =

0.006 =

104. Express each decimal as a fraction.

0.1 =

0.4 =

105. What is the fraction equivalent? Simplify the fractions.

0.12 =

0.008 =
Name: ________________________________

106. Express each decimal as a fraction. Simplify the fractions.

\[ 0.5 = \]

\[ 0.08 = \]

Name: ________________________________

107. Express each decimal as a fraction.

\[ 1.1 = \]

\[ 0.11 = \]

Name: ________________________________

108. Express each decimal as a fraction. Simplify the fractions.

\[ 0.16 = \]

\[ 0.005 = \]
109. Which is greater? Circle the correct answer.

\[
\frac{12}{100} \quad \text{or} \quad 0.13 \quad \frac{21}{10} \quad \text{or} \quad 1.21 \quad \frac{1}{1,000} \quad \text{or} \quad 0.0001
\]

110. Round the decimal to the nearest whole number. If the answer is an odd number, the statement is true. If it’s even, the statement is false.

Delaware was the first colony to become a U.S. state. True or false?

0.79

111. Round the decimal to the nearest whole number. If the answer is an odd number, the statement is true. If it’s even, the statement is false.

A dragonfly’s life lasts about 24 hours. True or false?

13.002
112. Round the decimal to the nearest whole number. If the answer is an odd number, the statement is true. If it's even, the statement is false.

Homer Simpson’s middle name is Jebediah. True or false?

3.9009

113. Round the decimal to the nearest tenths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

Thomas Jefferson wrote the Declaration of Independence. True or false?

3,115.09

114. Round the decimal to the nearest tenths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

J.K. Rowling’s initials stand for Jackie Kennedy. True or false?

212.3991
115. Round the decimal to the nearest hundredths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

The Statue of Liberty was a gift from Canada to the United States. True or false?

116. Round the decimal to the nearest hundredths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

George Washington had an identical twin brother. True or false?

117. Round the decimal to the nearest whole number. If the answer is an odd number, the statement is true. If it's even, the statement is false.

John “Johnny Appleseed” Chapman covered more than 100,000 square miles with cherry trees in his lifetime. True or false?

118. Round the decimal to the nearest tenths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

Butterflies fly south for the winter. True or false?
Name: ____________________________________________

119. Round the decimal to the nearest tenths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

   There is a cookie-jar museum in Lemont, Illinois. True or false?

   476.51

Name: ____________________________________________

120. Round the decimal to the nearest hundredths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

   A sheep has eight stomachs. True or false?

   243.9841

Name: ____________________________________________

121. Round the decimal to the nearest hundredths place. If the last numeral is an odd number, the statement is true. If it's even, the statement is false.

   New York City was once called New Amsterdam. True or false?

   9,999,998.613
Adding Decimals

122. Each connected set of three numbers should add up to 10. Fill in the missing numbers.

Name: ________________________________

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<th>2.5</th>
<th></th>
<th>3.2</th>
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</table>

123. Each connected set of three numbers should add up to 10. Fill in the missing numbers.

Name: ________________________________

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<th></th>
<th>5.6</th>
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<tr>
<td>2.3</td>
<td></td>
<td></td>
<td>4.5</td>
</tr>
</tbody>
</table>

124. Each connected set of three numbers should add up to 10. Fill in the missing numbers.

Name: ________________________________

|   |   | 0.09 | 2.6 | 4.78 |
|   |   | 2.53 |   |     |

|   |   |   |   |   |
125. You be the teacher! Which of these is NOT correct?
   a) 0.001 + 0.01 + 10.1 = 10.111
   b) 1.01 + 0.01 + 1.01 = 2.13
   c) 0.07 + 7.7 + 7 = 14.77

126. You be the teacher! Which of these equations is NOT correct?
   a) 0.1 + 0.2 = 0.3
   b) 0.5 + 0.6 = 0.14
   c) 1.7 + 0.2 = 1.9

127. What number am I?
   I am an even number.
   I am the number of servings of vegetables you should eat every day.
   I am the sum of 1.59 + 2.03 + 0.38.
Adding Decimals

128. What number am I?

I am an odd number.

I am the age at which King Tut became the ruler of Egypt.

I am the sum of 0.006 + 4.112 + 3.5 + 1.382.

Subtracting Decimals

129. You be the teacher! Which of these is NOT correct?

a) 88.33 – 0.34 = 87.99

b) 888.33 – 80.33 = 808

c) 8.833 – 8.003 = 0.083

130. You be the teacher! Which of these equations is NOT correct?

a) 12 – 0.6 = 11.4

b) 253.2 – 0.08 = 253.12

b) 100.001 – 0.101 = 9.99
131. What number am I?
   I am an odd number.
   I am the year in which the school desk was invented.
   I am the difference of 1,973.33 – 84.33.

132. What number am I?
   I am an even number.
   I am the year *The Simpsons* premiered on TV.
   I am the difference of 3,890.0019 – 1,900.0019.

133. What number am I?
   I am a decimal.
   I am the length (in meters) of the world’s largest fish, the whale shark.
   I am the difference of 143.42 – 130.77.
134. Solve the equation. If the difference is a decimal, the statement is true. If it’s a whole number, the statement is false.

Bats have the best hearing of all land-dwelling animals. True or false?

428.7 – 54.07 =

135. You be the teacher! Which of these is NOT correct?

a) 25.432 – 23.692 = 1.74
b) 36.598 – 19.597 = 17.01
b) 86.244 – 72.669 = 13.575

136. You be the teacher! Which of these is NOT correct?

a) 0.029 + 0.599 – 0.02 = 6.08
b) 0.029 + 5.99 – 2.019 = 4
c) 0.029 + 0.059 – 0.008 = 0.08
Name: __________________________________________

137. You be the teacher! Which of these equations is NOT correct?
   a) $16.5 + 0.3 - 6.8 = 23.6$
   b) $0.04 - 0.04 + 11.09 = 11.09$
   c) $88.3 + 6.2 - 0.5 = 94$

Name: __________________________________________

138. You be the teacher! Which of these is NOT correct?
   a) $19.91 - 0.99 + 0.08 = 1.9$
   b) $1.991 - 0.99 + 0.08 = 1.081$
   c) $1.9 - 0.9 + 11 = 12$

Name: __________________________________________

139. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

   A group of lions is called a pride. True or false?
   $4 \times 0.51 = $
140. What number am I?

I am an odd number.

I am the number of Major League Baseball teams named after birds.

I am the product of 6 times 0.5.

141. Solve the equation. If the product is a decimal, the statement is true.
If the product is a whole number, the statement is false.

A group of parrots is called a company. True or false?

64 \times 0.06 =

142. You be the teacher! Which of these is NOT correct?

a) 0.5 \times 0.6 = 0.03

b) 0.5 \times 0.06 = 0.03

c) 0.05 \times 0.6 = 0.03
143. What number am I?

I am a decimal.

I am the weight in pounds of a million one-dollar bills.

I am the product of 510.2 times 4.

144. You be the teacher! Which of these is NOT correct?

a) $0.1 \times 0.1 = 0.01$

b) $0.01 \times 0.1 = 0.001$

c) $0.01 \times 0.01 = 0.00001$

145. Solve the equation. If the product is a decimal, the statement is true.
If the product is a whole number, the statement is false.

A group of monsters is called a cookie. True or false?

$30 \times 0.6 =$
146. What number am I?

I am an even number.

I am the highest temperature (in degrees Fahrenheit) ever recorded in the United States.

I am the product of 536 times 0.25.

147. You be the teacher! Which of these is NOT correct?

a) $0.123 \times 1 = 0.123$

b) $1.23 \times 0.1 = 1.23$

c) $1.23 \times 0.01 = 0.0123$

148. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

A group of worms is called a mystery. True or false?

$160 \times 0.05 =$
149. What number am I?

I am an even number.
I am the number of times your heart beats in a day.
I am the product of 250,000 times 0.4.

150. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

A group of goats is called a trip.
True or false?
12 × 0.7 =

151. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

A group of toads is called a knot.
True or false?
149 × 0.08 =
152. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

A group of turtles is called a bale. True or false?

6 × 0.25 =

153. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

A group of flies is called a swatter. True or false?

100 × 0.01 =

154. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

A group of skunks is called a stink. True or false?

1,500 × 0.25 =
155. Solve the equation. If the product is a decimal, the statement is true. If the product is a whole number, the statement is false.

A group of ponies is called a string. True or false?

\[ 1 \times 0.99 = \]

156. What number am I?

I am an odd number.
I am the number of known moons orbiting Saturn.
I am the quotient of 28.5 divided by 1.5.

157. What number am I?

I am an even number.
I am the number of known rings around Neptune.
I am the quotient of 12.8 divided by 3.2.
**Dividing Decimals**

Name: _____________________________

158. You be the teacher! Which of these is NOT correct?

a) $10 \div 0.2 = 5$

b) $10 \div 0.02 = 500$

c) $10 \div 0.002 = 5,000$

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Name: _____________________________

159. Solve the equation. If the quotient is a decimal, the statement is true. If the quotient is a whole number, the statement is false.

Elephants can’t jump. True or false?

$8.6 \div 2 = $ __________

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Name: _____________________________

160. Solve the equation. If the quotient is a decimal, the statement is true. If the quotient is a whole number, the statement is false.

Butterflies taste with their feet. True or false?

$1.86 \div 6 = $ __________
161. Solve the equation. If the quotient is a decimal, the statement is true.
If the quotient is a whole number, the statement is false.

Jellyfish have no bones. True or false?

13 ÷ 1.6 =

162. Solve the equation. If the quotient is a decimal, the statement is true.
If the quotient is a whole number, the statement is false.

An ostrich’s eye is bigger than its brain. True or false?

0.016 ÷ 0.4 =

163. Solve the equation. If the quotient is a decimal, the statement is true.
If the quotient is a whole number, the statement is false.

Tigers have striped skin. True or false?

0.1 ÷ 0.2 =
Dividing Decimals

164. Solve the equation. If the quotient is a decimal, the statement is true. If the quotient is a whole number, the statement is false.

Crickets are common pets in Japan. True or false?

0.03 ÷ 0.02 =

165. Solve the equation. If the quotient is a decimal, the statement is true. If the quotient is a whole number, the statement is false.

A cockroach can live for a week without a head. True or false?

0.24 ÷ 8 =

166. Solve the equation. If the quotient is a decimal, the statement is true. If the quotient is a whole number, the statement is false.

Zebras never sleep. True or false?

10 ÷ 0.05 =
Name: ____________________________

167. Solve the equation. If the quotient is a decimal, the statement is true. If the quotient is a whole number, the statement is false.

An albatross can sleep while it flies. True or false?

\[ 0.55 \div 0.5 = \]
170. You be the teacher! Which of these is NOT correct?
   a) $0.25 \times 3 + 0.2 = 9.5$
   b) $0.25 \times 0.3 + 2 = 2.075$
   c) $0.25 \times 2 + 3 = 3.5$

171. You be the teacher! Which of these is NOT correct?
   a) $0.22 \times 2.5 \div 1 = 0.55$
   b) $0.22 \times 2.5 \div 0.1 = 5.5$
   c) $0.22 \times 0.25 \div 0.1 = 5.5$

172. You be the teacher! Which of these is NOT correct?
   a) $0.09 \times 6 \div 9 = 0.06$
   b) $0.9 \times 6 \div 9 = 0.06$
   c) $0.9 \times 0.6 \div 9 = 0.06$
173. Franny the football fanatic bought 50 Giants jerseys. If each jersey cost $135.57, how much did Franny spend for all 50?

174. Harold brought $5.24 to the jelly bean store. He spent half his cash on liver-flavored jelly beans. (His cat loves them!) How much money did he spend?

175. Kirby’s cat had 6 kittens. If he sells each one for the same price, he’ll make a total of $4.74. How much does one of Kirby’s kittens cost?

176. Which would you rather have? Why?

3 weekly installments of $525

or

52.5 weekly installments of $300
177. If Lola sells lemonade for $15.08 a gallon, how much money does she make for each quart? (Hint: There are 4 quarts in one gallon.)

178. Kirby ate $\frac{1}{3}$ of the cookies he made for the big bake sale. If he ate 12 cookies, how many does he have left? How much will he make if he sells each cookie for $.15 each?

179. Phineas found a $20 bill! How many pieces of candy will that get him at the penny candy store?

180. Irving has $\frac{1}{4}$ of $3,660. Bertha has $\frac{1}{5}$ of $5,995. Who’s richer?
## Answers

1. \( \frac{3}{4} \)
2. \( \frac{7}{10} \)
3. \( \frac{22}{33} \)
4. \( \frac{8}{5} \)
5. \( \frac{9}{3} \)
6. \( \frac{3}{5} \)
7. \( \frac{4}{13} \)
8. \( \frac{1}{15} \)
9. \( d \)
10. \( \frac{5}{7}, \frac{7}{7}, \frac{8}{7} \)
11. \( \frac{2}{3}, \frac{1}{3}, \frac{10}{3} \)
12. \( \frac{44}{22} \)
13. \( \frac{5}{4} \)
14. \( \frac{1}{52} \)
15. \( \frac{1}{2} \)
16. \( \frac{1}{4} \)
17. \( \frac{2}{12} \) or \( \frac{1}{6} \)
18. \( \frac{4}{4} \)
19. \( \frac{13}{50} \)
20. \( \frac{3}{5} \)
21. \( \frac{1}{3} \)
22. \( \frac{1}{3} \)
23. \( \frac{1}{4} \)
24. \( \frac{4}{10} \) or \( \frac{2}{5} \)
25. \( \frac{1}{5} \)
26. \( \frac{25}{100} \) or \( \frac{1}{4}; \frac{75}{100} \) or \( \frac{3}{4} \)
27. \( \frac{7}{13} \)
28. \( \frac{5}{19} \)
29. \( \frac{2}{3} \)
30. \( \frac{13}{32} \)
31. \( \frac{1}{9} \)
32. \( \frac{7}{23} \)
33. \( \frac{1}{3} \)
34. \( \frac{1}{5} \)
35. \( \frac{1}{6} \)
36. \( \frac{1}{2} \)
37. \( \frac{1}{4} \)
38. \( \frac{1}{2} \)
39. \( \frac{1}{4} \)
40. \( \frac{1}{4} \)
41. \( \frac{3}{13} \)
42. \( 8; \frac{3}{4}; \frac{4}{5} \)
43. \( c \)
44. True
45. True
46. False
47. True
48. False
49. False
50. True
51. True
52. True
53. True
54. \(<; <\)
55. \(>; >\)
56. \(>; <\)
57. \(<; <\)
58. \(b\)
59. \(a\)
60. \(1/8, 5/10, 3/5\)
61. \(5/4, 22/33, 1/17\)
62. \(9/900, 15/60, 9/10\)
63. \(3/5; 2\)
64. \(1/2; 1 5/6\)
65. \(15/44; 12/35\)
66. \(1 1/2; 3/4\)
67. \(1; 3\)
68. \(2 1/3, True\)
69. \(1/8; 1/2\)
70. \(1/7; 7/15\)
71. \(0; 1/6\)
72. \(0; 1 8/21\)
73. \(6 3/5, True\)
74. \(3/32; 0\)
75. \(1; 3/40\)
76. \(8 3/4, True\)
77. \(2 1/2, True\)
78. \(1, False\)
79. \(20; 1 2/7\)
80. \(4, False\)
81. \(1, False\)
82. \(1 2/9, True\)
83. \(2 1/2, True\)
84. \(1 2/3, True\)
85. \(2 2/3, True\)
86. \(4; 13/16\)
87. \(0.5; 0.75\)
88. \(0.2; 0.08\)
89. \(True; False; True\)
90. \(1/2; 2.02; 3/4\)
91. \(a) 2; b) 0; c) 4\)
92. \(a) 0; b) 8; c) 3\)
93. \(a) 6; b) 4; c) 2\)
94. \(a) 4; b) 2; c) 5\)
95. \(a) 4; b) 9; c) 0\)
96. \(a) 4; b) 2; c) 9\)
97. \(a) 5; b) 8; c) 9\)
98. \(a) 9; b) 7; c) 5\)
99. a) 4; b) 7; c) 3
100. 1.2, 0.2, 0.1, 0.02, 0.01
101. 0.87, 0.78, 0.709, 0.087, 0.0009; Max
102. 0.0121, 0.00212, 0.00121, 0.000212, 0.000121; Labrador retriever
103. 6/10; 6/100; 6/1,000
104. 1/10; 4/10 or 2/5
105. 3/25; 1/125
106. 1/2; 2/25
107. 1 1/10; 11/100
108. 4/25; 1/200
109. 0.13; 21/10; 1/1,000
110. 1, True
111. 13, True
112. 4, False
113. 3,115.1, True
114. 212.4, False
115. 1.72, False
116. 4,000,000.04, False
117. 14, False
118. 333.3, True
119. 476.5, True
120. 243.98, False
121. 9,999,998.61, True
122. 2.5
123. 5.6
124. 3.0
125. 2.2
126. 1.5
127. 6.3
128. 2.3
129. 3.2
130. 4.5
131. 1889
132. 1990
133. 12.65
134. 374.63, True
135. b
136. a
137. a
138. a
139. 2.04, True
140. 3
141. 3.84, True
142. a
143. 2,040.8
144. c
145. 18, False
146. 134
147. b
148. 8, False
149. 100,000
150. 8.4, True
151. 11.92, True
152. 1.5, True
153. 1, False
154. 375, False
155. 0.99, True
156. 19
157. 4
158. a
159. 4.3, True
160. 0.31, True
161. 8.125, True
162. 0.04, True
163. 0.5, True
164. 1.5, True
165. 0.03, True
166. 200, False
167. 1.1, True
168. b
169. a
170. a
171. c
172. b
173. $6,778.50
174. $2.62
175. $.79
176. 52.5 weekly installments of $300; because its total of $15,750 is more than the $1,575 total of the other option
177. $3.77
178. 24, $3.60
179. 2,000 pieces of candy
180. Bertha; she has $1,199, while Irving has $915