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Practice 14

Reminder

To divide two fractions: $\frac{3}{4} \div \frac{1}{4} =$

1. Get the reciprocal of the second fraction by inverting the fraction (turning it upside down). $\frac{1}{4}$ becomes $\frac{4}{1}$.
2. Change the sign to multiplication (x).
3. Multiply the fractions.
4. Reduce the answer to lowest terms.

$\frac{3}{4} \div \frac{1}{4} =$

$\frac{3}{4} \times \frac{4}{1} = \frac{12}{4} = 3$

Directions: Divide these fractions. Reduce to lowest terms. The first two are done for you.

1. $\frac{2}{3} \div \frac{1}{2} =$

$\frac{2}{3} \times \frac{2}{1} = \frac{4}{3} = 1\frac{1}{3}$

2. $\frac{3}{4} \div \frac{1}{3} =$

$\frac{3}{4} \times \frac{3}{1} = \frac{9}{4} = 2\frac{1}{4}$

3. $\frac{4}{5} \div \frac{2}{3} =$

4. $\frac{4}{5} \div \frac{1}{5} =$

5. $\frac{3}{7} \div \frac{1}{7} =$

6. $\frac{2}{5} \div \frac{1}{2} =$

7. $\frac{3}{6} \div \frac{1}{2} =$

8. $\frac{2}{8} \div \frac{1}{4} =$

9. $\frac{2}{3} \div \frac{4}{6} =$

10. $\frac{1}{4} \div \frac{4}{1} =$

11. $\frac{2}{7} \div \frac{7}{2} =$

12. $\frac{5}{9} \div \frac{9}{5} =$

13. $\frac{6}{4} \div \frac{1}{3} =$

14. $\frac{5}{8} \div \frac{8}{2} =$

15. $\frac{7}{6} \div \frac{3}{2} =$

16. $\frac{8}{12} \div \frac{1}{2} =$

17. $\frac{8}{12} \div \frac{2}{1} =$

18. $\frac{4}{10} \div \frac{4}{2} =$

19. $\frac{6}{3} \div \frac{3}{1} =$

20. $\frac{14}{20} \div \frac{1}{2} =$

21. $\frac{6}{14} \div \frac{3}{7} =$

22. $\frac{4}{6} \div \frac{2}{4} =$

23. $\frac{3}{4} \div \frac{1}{8} =$

24. $\frac{3}{15} \div \frac{1}{3} =$

25. $\frac{1}{2} \div \frac{1}{3} =$

26. $\frac{1}{4} \div \frac{1}{2} =$

27. $\frac{1}{8} \div \frac{1}{3} =$

28. $\frac{4}{9} \div \frac{4}{8} =$

Practice 22

Reminder

To subtract decimals:

1. Use the ladder form.
2. Line up the decimals.
3. Use placeholder zeroes (if needed).
4. Subtract the numbers (borrow/regroup where necessary).
5. Line up the decimal in your answer with the decimals from the problem.

8.1 – 6.513 =

$\overset{7}{8}.\overset{10}{1}\overset{9}{0}\overset{10}{0}$ ← (placeholder zeroes)

– 6.513

1.587 ← (decimal stays three places to the left)

Directions: Use the reminder above to correctly subtract these decimals. The first two are done for you. Use a separate sheet of paper to complete #13–27.

1. 6.100 − 1.834 = 4.266

2. 0.900 − 0.813 = 0.087

3. 8.1 − 3.66 =

4. 17.03 − 5.762 =

5. 8.013 − 1.3 =

6. 9.4 − 4.002 =

7. 0.1 − 0.011 =

8. 9 − 5.713 =

9. 4.113 − 2.332 =

10. 3.022 − 1.123 =

11. 5.019 − 1.238 =

12. 8 − 7.188 =

13. 2.1 – 1.08 =

14. 6 – 4.77 =

15. 3.01 – 2.897 =

16. 2 – 0.003 =

17. 9 – 2.008 =

18. 42 – 13.078 =

19. 2.011 – 0.14 =

20. 20 – 13.002 =

21. 6.01 – 3.041 =

22. 7 – 2.421 =

23. 34.2 – 5.022 =

24. 13 – 11.91 =

25. 2 – 0.68 =

26. 4.1 – 1.071 =

27. 14 – 1.013 =

Practice 30

Reminder

Decimals in the hundredths places are converted to percents by removing the decimal point and adding the percent sign. Drop unnecessary zeroes.

0.25 = 25% 0.03 = 3% 0.12 = 12%

Decimals in the thousandths places are converted to percents by moving the decimal point two places to the right and adding the percent sign. Drop unnecessary zeroes.

0.025 = 2.5% 0.003 = .3% 0.095 = 9.5%

NOTE: Some zero placeholders must be added, as in these examples:

6.9 = 690% 10.4 = 1040% 9.5 = 950%

Directions: Convert the following decimals into percents. The first two are done for you.

1. 0.35 = 35% **2.** 4.02 = 402% **3.** 0.04 = _____

4. 0.02 = _____ **5.** 0.91 = _____ **6.** 1.07 = _____

7. 1.09 = _____ **8.** 0.08 = _____ **9.** 17.06 = _____

10. 0.13 = _____ **11.** 0.01 = _____ **12.** 2.39 = _____

13. 0.005 = _____ **14.** 0.012 = _____ **15.** 9.003 = _____

16. 1.01 = _____ **17.** 3.001 = _____ **18.** 7.7 = _____

Directions: Convert these percents to decimals. The first two are done for you.

19. 24% = 0.24 **20.** 2.3% = 0.023 **21.** 9.08% = _____

22. 3.4% = _____ **23.** 90.13% = _____ **24.** 6.4% = _____

25. 44% = _____ **26.** 19.4% = _____ **27.** 1.1% = _____

28. 1.13% = _____ **29.** 4% = _____ **30.** 82.5% = _____

31. 7% = _____ **32.** 1.03% = _____ **33.** 1% = _____

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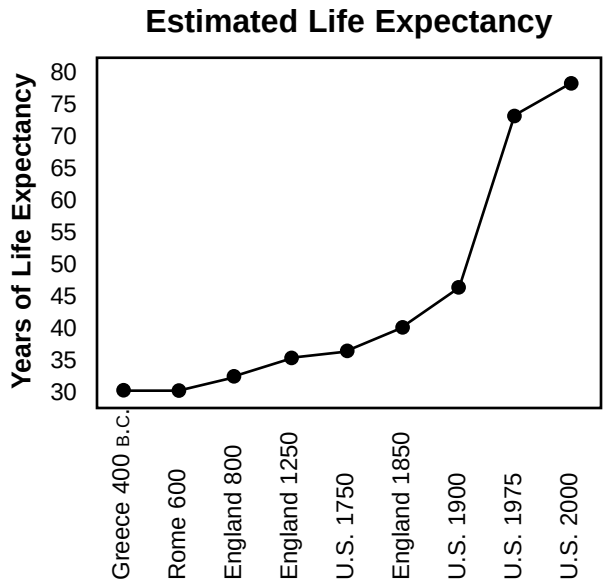
Practice 24

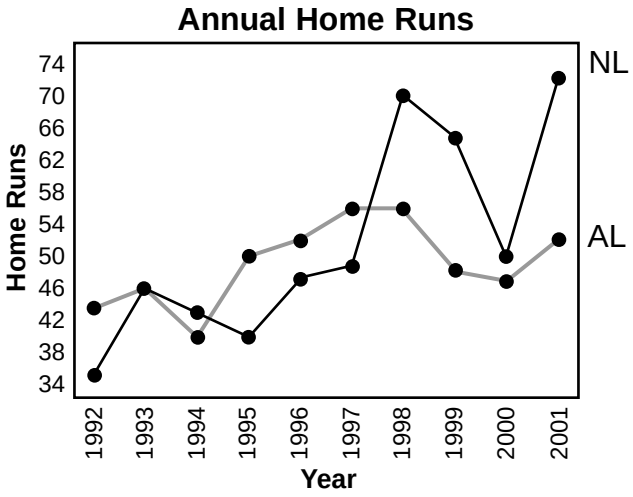
Directions: A line graph illustrates change over time. This graph illustrates human life expectancies at times from 400 B.C. in Greece to A.D. 2000 in the United States. Use the graph to answer these questions.



1. What was the life expectancy in England about the year 1250? _____
2. What was the average age a person lived to in Greece in the year 400 B.C.? _____
3. In what country and year was the life expectancy 47 years? _____
4. What is the difference in average life expectancy from Greece in 400 B.C. to the United States in 2000? _____
5. In what year in the United States was the life expectancy 36 years? _____
6. In what century did life expectancy increase 30 years? _____
7. How many years did it take for life expectancy to increase from 30 years in Greece to 40 years in England?

   _____

Directions: The double line graph shows the number of home runs hit by the home run leader in each league for a 10-year period. Study the graph and answer these questions.



8. In which year were the most home runs hit by one batter? _____
9. In which year did the American League (AL) leader and the National League (NL) leader hit the same number of home runs?

   _____
10. In which two years did the American League leader hit 56 home runs?

    _____
11. In what year did the American League leader hit only 40 home runs? _____
12. In which year were the fewest total home runs hit by the leaders in the two leagues?

    _____
13. In which five years did the National League leader hit more home runs than the American League leader? _____

    _____
14. In which four years did the American League leader hit more home runs than the National League leader? _____

    _____
15. Which league's leaders hit more home runs over the 10 year period? _____

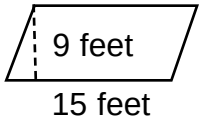
Practice 28

The Lawn Magicians are three fifth grade friends who earn money mowing their neighbors' lawns. They charge by the square foot so they have to know the area of each lawn they mow.

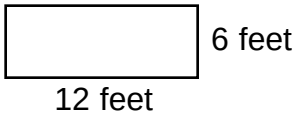
Directions: Help the Lawn Magicians compute the area of each lawn described below.

Remember These Formulas: Area of a rectangle = base times height; Area of a parallelogram = base times height; Area of a triangle = base times height divided by 2

1. Mr. Steven's yard is a parallelogram 9 feet high and 15 feet at the base. What is the area of his lawn? _____

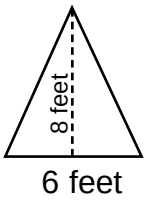


2. Mrs. Frank's rectangular lawn measures 12 feet by 6 feet. How many square feet does it cover? _____



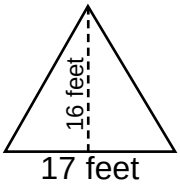
3. Mr. Ellis's lawn is shaped like an isosceles triangle. It has a height of 8 feet and a 6 feet base. What is the area of his lawn?

_____

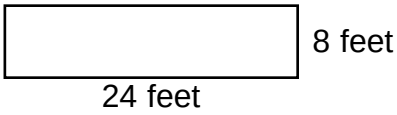


4. Mrs. Sharp's lawn is a triangle with a height of 16 feet and a base of 17 feet. How many square feet will the Lawn Magicians mow?

_____

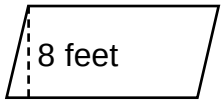


5. The Lawn Magicians mowed their next door neighbor's rectangular lawn which was 8 feet by 24 feet What was the area in square feet? _____

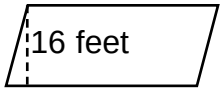


6. Mr. Potter's lawn was a parallelogram 8 feet high and 9 feet at the base. How many square feet did the lawn cover?

_____

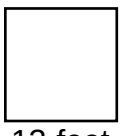


7. Ms. Breen's lawn was shaped like a parallelogram with a height of 16 feet and a base of 20 feet. What was the area in square feet? _____



8. Mrs. Ricardo's lawn was square. It was 13 feet on each side. How many square feet did the Lawn Magicians have to mow?

_____



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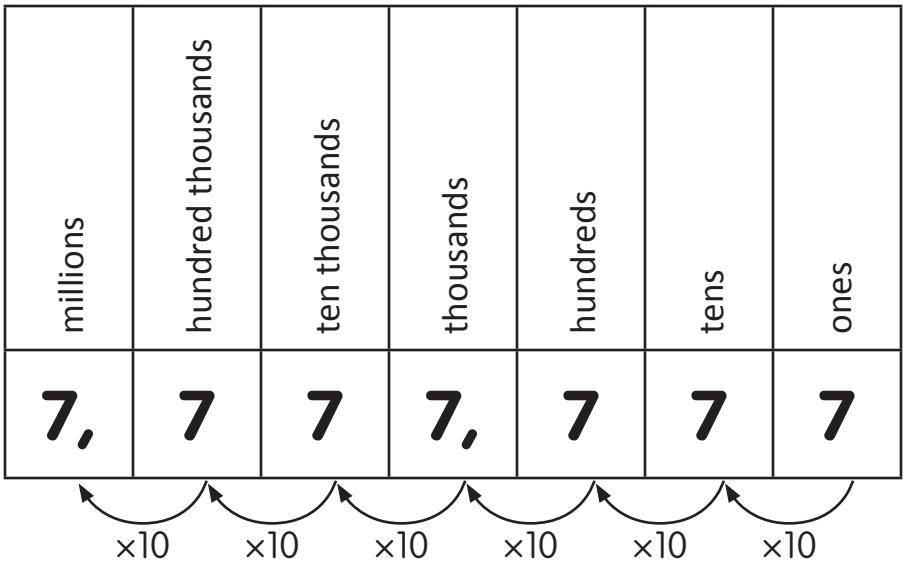
Powers of Ten

How does a number's position tell us its value?

A digit in one place is 10 times the value of the digit to its right.



The 7 in the hundreds place represents 700.

The 7 in the tens place represents 70.

Likewise, a digit in one place is $\frac{1}{10}$ of the value of the digit to its left.

So, a 7 in the tens place is $\frac{1}{10}$ the value of a 7 in the hundreds place.

5	6	0	2	8	9	1

5 millions, 6 hundred thousands, 0 ten thousands, 2 thousands, 8 hundreds, 9 tens, 1 one

Name: _____

Powers of Ten

Work with your partner to solve these practice problems.

1. 5,000,000 + 300,000 + 50,000 + 2,000 + 100 + 7 = _____

2. 4 thousands + _____ + 9 tens + 5 ones = 4,395

3. Circle the digit that represents $\frac{1}{10}$ of the digit in the thousands place.

5,555,555

4. How will the value of 9,289,345 change if the number 8 is replaced by the number 1?

_____

5. Look at the number below. How much will the number decrease if the number 4 is replaced by the number 1?

4,562,389

_____

Name: _____

Powers of Ten

Focus on what you learned. Find the answers.

1. Put the following labels in the correct spot in the table:
hundred thousands, ones, ten thousands, millions, thousands, hundreds, tens

2. Which place value represents 10 times more than the hundred thousands place?

_____

3. 563,429 = _____ + 6 ten thousands
+ 3 thousands + 4 hundreds + 2 tens + 9 ones

4. How will the value of 18,246,310 change if the number 6 is replaced by the number 5?

_____

5. 6 hundred thousands + 9 tens + 5 ones = _____

Name: _____

Powers of Ten

Think about the powers of ten in place value. Write about what you learned.

1. Why do you think a digit in one place represents 10 times as much as it represents in the place to its right, and $\frac{1}{10}$ of what it represents in the place to its left? You may want to include a drawing to help illustrate your point.

2. Which of the following numbers have 2 hundred thousands? How do you know?

   125,380 225,890 3,256,421 12,456,001

3. What is the most interesting thing you learned about the powers of ten?