

Grade 6 Warm Up



1) Given the following fraction reduce to find an equivalent fraction in lowest terms

a)
$$\frac{48 \div 2}{100 \div 2} = \frac{24 \div 2}{50 \div 2} = \frac{12}{50} = \frac{14}{25} = \frac{7}{25}$$

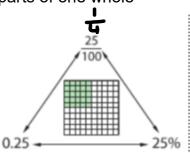
2) What is 14 as a decimal and a percent? 50

3) What is 12 as a decimal and a percent?

$$\frac{6}{10} - \frac{12}{20} = \frac{60}{100}$$

Remember
$$5 \times \frac{20}{5} = 100$$
 $4 \times \frac{25}{5} = 100$
 $2 \times 50 = 100$
 $10 \times 10 = 100$

Fractions, decimals, and percents are 3 ways to describe parts of one whole



Recall 1 whole can be

$$\frac{1}{1}$$
, $\frac{2}{2}$, $\frac{3}{3}$ and so on

these are all equivalent to 100% or a decimal of 1

solutions

Reducing Fractions (A) Answers Instructions: Reduce each fraction to its lowest terms.

$$\begin{array}{c|c}
2 & 2 \\
\hline
4 & 2 \\
\end{array}$$

$$\frac{2}{4} = \frac{1}{2} = \frac{35}{40.5} = \frac{7}{8} = \frac{10}{16.2} = \frac{5}{8} = \frac{8.9}{36.4} = \frac{2}{9}$$

$$\frac{10}{16} = \frac{5}{8}$$

$$\frac{8^{\frac{9}{4}}}{36_{4}} = \frac{2}{9}$$

$$\frac{4-4}{36} = \frac{1}{9}$$

$$\frac{6^{3}}{9^{13}} = \frac{2}{3}$$

$$\frac{18}{20} = \frac{9}{2} = \frac{4}{10} = \frac{4}{36} = \frac{1}{9} = \frac{6}{9} = \frac{2}{3} = \frac{2}{3} = \frac{1}{10} = \frac{1}{5}$$

$$\frac{3}{30} = \frac{1}{10}$$

$$\frac{44}{48} = \frac{11}{12}$$

$$\frac{5}{15} = \frac{1}{3}$$

$$\frac{3}{30} = \frac{1}{10}$$
 $\frac{44}{48} = \frac{11}{12}$ $\frac{5}{15} = \frac{1}{3}$ $\frac{10}{35} = \frac{2}{7}$

$$\frac{10}{45} = \frac{2}{9}$$

$$\frac{6}{14} = \frac{3}{7}$$

$$\frac{28}{32} = \frac{7}{8}$$

$$\frac{10}{45} = \frac{2}{9}$$
 $\frac{6}{14} = \frac{3}{7}$ $\frac{28}{32} = \frac{7}{8}$ $\frac{20}{24} = \frac{5}{6}$

$$\frac{5}{15} = \frac{1}{3}$$

$$\frac{4}{32} = \frac{1}{8}$$

$$\frac{5}{15} = \frac{1}{3}$$
 $\frac{4}{32} = \frac{1}{8}$ $\frac{30}{35} = \frac{6}{7}$ $\frac{3}{6} = \frac{1}{2}$

$$\frac{3}{6} = \frac{1}{2}$$

$$\frac{14}{24} = \frac{7}{12}$$

$$\frac{18}{20} = \frac{9}{10}$$

$$\frac{14}{18} = \frac{7}{9}$$

$$\frac{14}{24} = \frac{7}{12}$$
 $\frac{18}{20} = \frac{9}{10}$ $\frac{14}{18} = \frac{7}{9}$ $\frac{5}{35} = \frac{1}{7}$

$$\frac{4}{40} = \frac{1}{10}$$

$$\frac{4}{40} = \frac{1}{10}$$
 $\frac{35}{50} = \frac{7}{10}$ $\frac{2}{18} = \frac{1}{9}$ $\frac{2}{4} = \frac{1}{2}$

$$\frac{2}{18} = \frac{1}{9}$$

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

$$\frac{2}{6} = \frac{1}{3}$$

$$\frac{2}{14} = \frac{1}{7}$$

$$\frac{28}{40} = \frac{7}{10}$$

$$\frac{2}{6} = \frac{1}{3}$$
 $\frac{2}{14} = \frac{1}{7}$ $\frac{28}{40} = \frac{7}{10}$ $\frac{4}{28} = \frac{1}{7}$

$$\frac{45}{50} = \frac{9}{10}$$

$$\frac{12}{28} = \frac{3}{7}$$

$$\frac{45}{50} = \frac{9}{10}$$
 $\frac{12}{28} = \frac{3}{7}$ $\frac{12}{40} = \frac{3}{10}$ $\frac{25}{60} = -\frac{1}{10}$

$$\frac{25}{60} = \frac{5}{12}$$

Page 192 Homework Solutions

Practice

1. Draw Base Ten Blocks or shade a hundredths grid to represent each fraction.

Write each fraction as a percent and as a decimal
$$34\% = 0.34$$
a) $\frac{6}{100}6\% = 0.06$ b) $\frac{81}{100}81\% = 0.81$ c) $\frac{17}{50}\frac{34}{100}$ d) $\frac{3}{10}\frac{30}{100} = 0.30 = 30\%$
e) $\frac{1}{50}\frac{2}{20}$ f) $\frac{1}{5}\frac{20}{20}$ g) $\frac{7}{20}\frac{35}{35}$ h) $\frac{3}{4}$ $\frac{75}{100}$
 $\frac{75}{100} = 0.20 = 20\%$ $\frac{75}{100} = 75\% = 0.75$

- 2. Draw Base Ten Blocks or shade a hundredths grid to represent each decimal. Write each decimal as a fraction and as a percent.
 - **a)** 0.97
- **b**) 0.03
- c) 0.16
- **d**) 0.5

- e) 0.65
- f) 0.24
- g) 0.09
- h) 0.7

3. Draw Base Ten Blocks or shade a hundredths grid to represent each percent. Write each percent as a fraction and as a decimal.

- a) 14%
- b) 99%
- c) 25%
- d) 40%

- e) 35%
- f) 6%
- g) 90%
- h) 15%

Chapter 5 Fractions Ratios Percents Lesson 8 Relating fractions, decimals and Region 29,12020 2

Percent

Percent is a special ratio, where the second term is always 100.

Ex) 80% is often referred to as 80 out of 100.

You can easily write a percent as a fraction, decimal or number.

MUST STUDY THE FOLLOWING

Percent to Fraction --> Put the percent over 100 and reduce

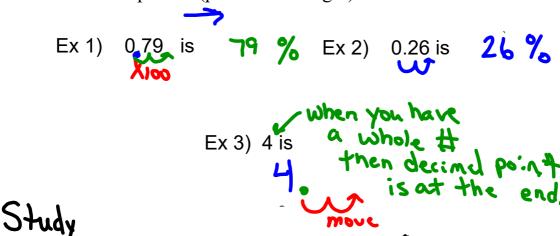
Ex) 80% as a fraction is

To take a percent to a decimal you divide by 100

Ex) 80% as a decimal

Write Decimals as a Percent

- To change from a decimal to a percent, you multiply by 100 (or move the decimal point 2 (places to the right)



Write Decimals as a Fractions

- use place value

(Or use the decimal to percent then to fraction and reduce)

21

ex) 0.21 this decimal stops in the hundredths place SO take the digits after the decimal and place them over 100 then reduce

400 %

You try)

a) Write 0.51 as a percent

51%

b) write 0.24 as a fraction

24 ÷9 100 ÷4

> <u>6</u> 25



Reducing Fractions Worksheet

Page 192 - 193 #4, 125, 6, 7, 8, 2, 10, 11

#2 abc #4 abc #6 abc

Test outline #3 acf #5 abc #10

Change a mixed fraction to a improper

Change a improper fraction to a mixed fraction

Place the fraction on the provided number line

Order the 3 fractions from least to greatest show work

Word problem comparing fractions

Given a picture tell the ratio of shapes

Write equivalent ratios and word problem of ratios

Given a 100s square write the %, decimal and fraction of shaded

MUST SHOW

WORK

Given fraction with denominator NOT 100, write the % or decimal

Worksheet

Reducing Fractions (A)

Instructions: Reduce each fraction to its lowest terms.

$$\frac{2}{4} =$$

$$\frac{10}{16} =$$

$$\frac{4}{36}$$
 =

$$\frac{4}{36} = \frac{6}{9} =$$

$$\frac{2}{10}$$
 =

$$\frac{3}{30} =$$

$$\frac{44}{48} =$$

$$\frac{5}{15}$$
 =

$$\frac{10}{35}$$
 =

$$\frac{10}{45} =$$

$$\frac{6}{14} =$$

$$\frac{28}{32} =$$

$$\frac{20}{24} =$$

$$\frac{5}{15} =$$

$$\frac{4}{32} =$$

$$\frac{30}{35} =$$

$$\frac{3}{6}$$
 =

$$\frac{14}{24} =$$

$$\frac{18}{20} =$$

$$\frac{14}{18} =$$

$$\frac{5}{35}$$
 =

$$\frac{4}{40} =$$

$$\frac{35}{50} =$$

$$\frac{2}{18} =$$

$$\frac{2}{4}$$
 =

$$\frac{2}{6}$$
 =

$$\frac{2}{14} =$$

$$\frac{28}{40} =$$

$$\frac{4}{28}$$
 =

$$\frac{45}{50} =$$

$$\frac{12}{28}$$
 =

$$\frac{12}{40} =$$

$$\frac{25}{60}$$
 =



Draw Base Ten Blocks or shade a hundredths grid to represent each fraction.
 Write each fraction as a percent and as a decimal.

a) $\frac{6}{100}$

b) $\frac{81}{100}$

c) ¹⁷/₅₀

d) $\frac{3}{10}$

e) $\frac{1}{50}$

f) $\frac{1}{5}$

g) $\frac{7}{20}$

h) $\frac{3}{4}$

2. Draw Base Ten Blocks or shade a hundredths grid to represent each decimal. Write each decimal as a fraction and as a percent.

a) 0.97

b) 0.03

c) 0.16

d) 0.5

e) 0.65

f) 0.24

g) 0.09

h) 0.7

3. Draw Base Ten Blocks or shade a hundredths grid to represent each percent. Write each percent as a fraction and as a decimal.

a) 14%

b) 99%

c) 25%

d) 40%

e) 35%

f) 6%

g) 90%

h) 15%

4. What percent of each whole is shaded? Show how you found your answers.

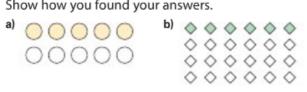






5. What percent of each set is shaded? Show how you found your answers.







6. Is each fraction greater than or less than 50%? Explain how you know.







d) $\frac{6}{6}$



7. Luis used a calculator to find a decimal and a percent equal to $\frac{1}{4}$. How might Luis have done this?



- 8. Use the data in the table. Is each statement true or false? Explain how you know.
 - a) More than 50% of the audience were adults or seniors.
 b) Of the audience, ⁵⁸/₁₀₀ were children or teens.

 - c) More than $\frac{1}{4}$ of the audience were adults.
 - d) Less than 0.5 of the audience were teens or adults.

Members of the Audience

Age Group	Percent
Children	13%
Teens	45%
Adults	34%
Seniors	8%

9. Which is least? Which is greatest? How do you know? 10% 0.01

10. Ravi got 18 out of 20 on a math quiz. Karli got 85% on the quiz. Whose mark was greater? How do you know?

- 11. Write a percent that represents:
 - a) a very little of something
 - b) almost all of something
 - c) a little more than $\frac{3}{4}$ of something
 - d) between 0.25 and 0.50 of something

How did you choose each percent?

Hundreds chart.jpg