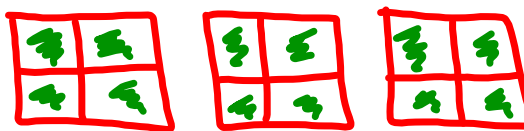


Math Review Unit 5 Warm Up

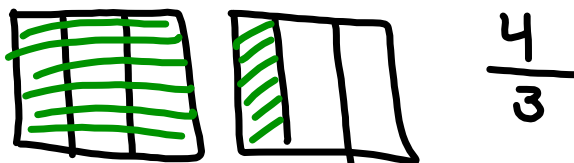
* Remember to write down the question before you answer it.

Represent the following fractions with a diagram.

$\frac{12}{4}$ ← Shade in (pieces)
 ← cut the whole into
 $\frac{12}{4} = 3$



$1 \frac{1}{3}$



Worksheet

Reducing Fractions (A)

Instructions: Reduce each fraction to its lowest terms.

$$\frac{2}{4} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{1}{2}$$

$$\frac{35}{40} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{7}{8}$$

$$\frac{10}{16} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{5}{8}$$

$$\frac{8}{36} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{2}{9}$$

$$\frac{18}{20} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{9}{10}$$

$$\frac{4}{36} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{1}{9}$$

$$\frac{6}{9} \begin{array}{l} \div 3 \\ = \\ \div 3 \end{array} = \frac{2}{3}$$

$$\frac{2}{10} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{1}{5}$$

$$\frac{3}{30} \begin{array}{l} \div 3 \\ = \\ \div 3 \end{array} = \frac{1}{10}$$

$$\frac{44}{48} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{11}{12}$$

$$\frac{5}{15} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{1}{3}$$

$$\frac{10}{35} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{2}{7}$$

$$\frac{10}{45} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{2}{9}$$

$$\frac{6}{14} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{3}{7}$$

$$\frac{28}{32} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{7}{8}$$

$$\frac{20}{24} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{5}{6}$$

$$\frac{5}{15} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{1}{3}$$

$$\frac{4}{32} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{1}{8}$$

$$\frac{30}{35} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{6}{7}$$

$$\frac{3}{6} \begin{array}{l} \div 3 \\ = \\ \div 3 \end{array} = \frac{1}{2}$$

$$\frac{14}{24} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{7}{12}$$

$$\frac{18}{20} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{9}{10}$$

$$\frac{14}{18} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{7}{9}$$

$$\frac{5}{35} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{1}{7}$$

$$\frac{4}{40} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{1}{10}$$

$$\frac{35}{50} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{7}{10}$$

$$\frac{2}{18} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{1}{9}$$

$$\frac{2}{4} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{1}{2}$$

$$\frac{2}{6} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{1}{3}$$

$$\frac{2}{14} \begin{array}{l} \div 2 \\ = \\ \div 2 \end{array} = \frac{1}{7}$$

$$\frac{28}{40} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{7}{10}$$

$$\frac{4}{28} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{1}{7}$$

$$\frac{45}{50} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{9}{10}$$

$$\frac{12}{28} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{3}{7}$$

$$\frac{12}{40} \begin{array}{l} \div 4 \\ = \\ \div 4 \end{array} = \frac{3}{10}$$

$$\frac{25}{60} \begin{array}{l} \div 5 \\ = \\ \div 5 \end{array} = \frac{5}{12}$$

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.

a) $\frac{6}{100} = 6\% = 0.06$ b) $\frac{81}{100} = 81\% = 0.81$ c) $\frac{17}{50} = \frac{34}{100} = 34\% = 0.34$ d) $\frac{3}{10} = \frac{30}{100} = 30\% = 0.30$
 e) $\frac{1}{50} = \frac{2}{100} = 2\% = 0.02$ f) $\frac{1}{5} = \frac{20}{100} = 20\% = 0.20$ g) $\frac{7}{20} = \frac{35}{100} = 35\% = 0.35$ h) $\frac{3}{4} = \frac{75}{100} = 75\% = 0.75$

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

a) $\frac{97}{100} = 97\%$ b) $\frac{3}{100} = 3\%$ c) $0.16 = \frac{16}{100} = \frac{8}{50} = \frac{4}{25}$
 d) $0.5 = \frac{50}{100} = \frac{5}{10} = \frac{1}{2} = 50\%$ e) $0.65 = \frac{65}{100} = \frac{13}{20} = 65\%$
 f) $0.24 = \frac{24}{100} = \frac{12}{50} = \frac{6}{25} = 24\%$ g) $0.09 = \frac{9}{100} = 9\%$ h) $0.7 = \frac{70}{100} = \frac{7}{10} = 70\%$

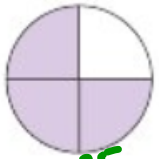
3. Draw Base Ten Blocks or shade a hundredths grid to represent each percent.
Write each percent as a fraction and as a decimal.


- a) 14% b) 99% c) 25% d) 40%
 e) 35% f) 6% g) 90% h) 15%

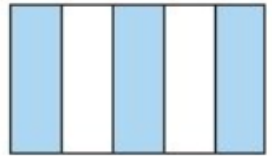
a) $14\% = \frac{14}{100} = \frac{7}{50} = 0.14$ b) $99\% = \frac{99}{100} = 0.99$ c) $25\% = \frac{25}{100} = \frac{1}{4} = 0.25$ d) $40\% = \frac{40}{100} = \frac{2}{5} = 0.40$
 e) $35\% = \frac{35}{100} = \frac{7}{20} = 0.35$ f) $6\% = \frac{6}{100} = \frac{3}{50} = 0.06$ g) $90\% = \frac{90}{100} = \frac{9}{10} = 0.9$ h) $15\% = \frac{15}{100} = \frac{3}{20} = 0.15$

4. What percent of each whole is shaded?

Show how you found your answers.


a)  $\frac{3}{4} = \frac{75}{100} = 75\%$
 $\frac{1}{4} = \frac{25}{100} = 25\%$


b)  $\frac{1}{1} = \frac{100}{100} = 100\%$

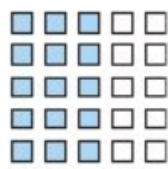
c)  $\frac{3}{6} = \frac{1}{2} = 0.5 = 50\%$
 $\frac{1}{2} = \frac{50}{100}$

5. What percent of each set is shaded?

Show how you found your answers.

a)  $\frac{5}{10} = \frac{50}{100} = 50\%$

b)  $\frac{6}{24} = \frac{1}{4} = \frac{25}{100} = 25\%$

c)  $\frac{15}{25} = \frac{60}{100} = 60\%$

6. Is each fraction greater than or less than 50%?

Explain how you know.

a) $\frac{7}{10} = \frac{70}{100} = 70\%$
 $\frac{7}{10} > 50\%$

b) $\frac{3}{4} = \frac{75}{100} = 75\%$
 $\frac{3}{4} > 50\%$

c) $\frac{11}{25} = \frac{44}{100} = 44\%$
 $\frac{11}{25} < 50\%$

d) $\frac{6}{6} = 100\%$
 $\frac{6}{6} > 50\%$
 $\frac{6}{6} = \frac{1}{1} = \frac{100}{100}$



7. Luis used a calculator to find a decimal and a percent equal to $\frac{1}{4}$.

How might Luis have done this?

$1 \div 4 = 0.25$
 ↑
 on calculator



8. Use the data in the table. Is each statement true or false? Explain how you know.

Members of the Audience

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

- a) More than 50% of the audience were adults or seniors. **F**
- b) Of the audience, $\frac{58}{100}$ were children or teens. **T**
- c) More than $\frac{1}{4}$ of the audience were adults. **T**
- d) Less than 0.5 of the audience were teens or adults.

a) Adults + Seniors $34\% + 8 = 42\%$

b) Children + teen = $13\% + 45\% = 58\% \rightarrow \frac{58}{100}$

9. Which is least? Which is greatest?

How do you know?

$10\% = \frac{1}{10} \times 10 = 0.01 \Rightarrow \frac{1}{100} \Rightarrow 1\%$
 $\frac{1}{10} = 10\%$

$\frac{1}{10} = 10\%$ greatest **T**

$0.01 \Rightarrow 1\%$
so least

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?

Ravi: $\frac{18}{20} = \frac{9}{10} \times \frac{10}{10} = \frac{90}{100} = 90\%$ for Ravi

Ravi's mark was greater
 $\frac{85}{100}$ $\frac{18}{20} \times \frac{5}{5} = \frac{90}{100}$

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?

Convert the following fractions.

Improper → Mixed

$$\frac{8}{3} \quad 2 \frac{2}{3}$$

$$\frac{5}{3} \quad 1 \frac{2}{3}$$

$$\frac{12}{5} \quad 2 \frac{2}{5}$$



Convert the following fractions.

Mixed \rightarrow Improper

$$3\frac{1}{2} \rightarrow \frac{7}{2}$$

$$7\frac{3}{4} \rightarrow \frac{31}{4}$$

Find equivalent fractions then put them in order from least to greatest.

$$\frac{14}{7}$$

$$\frac{5}{3}$$

$$2\frac{2}{3}$$

$$\frac{14 \times 3}{7 \times 3}$$

$$\frac{5 \times 7}{3 \times 7}$$

$$\frac{8 \times 7}{3 \times 7}$$

make C.D.

$$\frac{42}{21}$$

$$\frac{35}{21}$$

$$\frac{56}{21}$$

Smallest

Biggest

$$\frac{5}{3}$$

$$\frac{14}{7}$$

$$2\frac{2}{3}$$

$$\frac{14}{7} \Downarrow 2$$

$$\frac{5}{3} \Downarrow 1\frac{2}{3}$$

$$2\frac{2}{3} \Downarrow 2\frac{2}{3}$$

$$\frac{5}{3}$$

$$\frac{14}{7}$$

$$2\frac{2}{3}$$

Ratu made $4\frac{1}{2}$ dozen pancakes,
 Addie made $\frac{28}{6}$ dozen pancakes,
 and Penny made $\frac{13}{3}$ dozen pancakes.
 Who made the most pancakes?
 Who made the least?



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

$$\frac{9 \times 3}{2 \times 3}$$

$$\frac{27}{6}$$

$$\frac{28}{6} = 4\frac{4}{6}$$

$$\frac{28}{6}$$

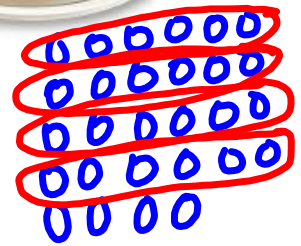
$$\frac{28}{6}$$

Penny

$$\frac{13}{3} = 4\frac{1}{3}$$

$$\frac{13 \times 2}{3 \times 2}$$

$$\frac{26}{6}$$





What is being compared?

a. 7 : 5

b. 5 : 12

c. 5 : 7

Crow : Card

Card : All

Card : Crow

What type ratios are the following?

a. 5 : 7

b. 7 : 12

Crow : All

Are the following ratios equivalent?

a. $6:7$ $12:14$ $30:35$

Yes

b. $2:4$ $10:20$ $40:80$

Yes

c. $3:3$ $6:6$ $9:9$
 $1:1$ $1:1$ $1:1$ $2 \div 9$

d. $5:8$ $10:16$ $15:21$

$\times 2 \times 2$

$\times 6$ $5:8$
 15 24 $\times 3$

Not equivalent

Write an equivalent ratio with 20 as one of the terms.

a. 3 : 5

c) $1:4 \xrightarrow{\times 5} 5:20$ or $1:4 \xrightarrow{\times 20} 20:80$

b. 2 : 10

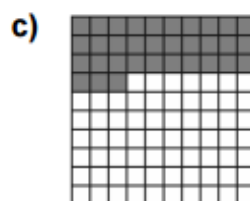
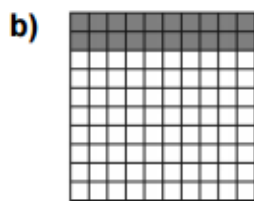
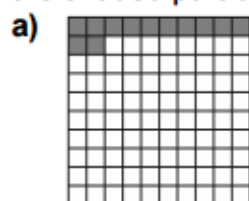
c. 1 : 4

a) $3:5 \xrightarrow{\times 4} 12:20$

b) $2:10 \xrightarrow{\times 10} 20:100$

or $2:10 \xrightarrow{\times 2} 4:20$

Write a fraction with hundredths, a decimal, and a percent to name the shaded part of each grid.



$$\frac{12}{100}$$
$$= 12\%$$
$$0.12$$

Write as a percent. Then write as a decimal.

a) 37 out of 100

b) $\frac{28}{100}$

c) 13 : 100

d) $\frac{93}{100}$

Write each percent as a fraction with hundredths. Then write as a decimal.

a) 12%

b) 2%

c) 81%

d) 65%

Write each fraction as a percent and as a decimal.

a) $\frac{18}{100}$

b) $\frac{73}{100}$

c) $\frac{4}{100}$

d) $\frac{26}{100}$

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

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

g) $\frac{6}{25}$

h) $\frac{29}{50}$

Write each fraction as a percent.

a) $\frac{8}{32}$

b) $\frac{9}{18}$

c) $\frac{6}{20}$

d) $\frac{35}{70}$

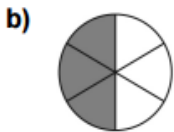
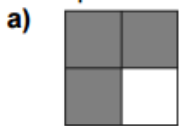
e) $\frac{4}{25}$

f) $\frac{6}{15}$

g) $\frac{14}{28}$

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

What percent of each whole is shaded?



Write each decimal as a fraction and as a percent.

a) 0.21

b) 0.68

c) 0.09

d) 0.24

e) 0.03

f) 0.75

g) 0.15

h) 0.99

Need more

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#1, 2, 3ab, 4ab, 5, 8ab, 9bc, 11,13