

Grade 6 Chapter 12 Lesson 7 Relating Percents to Decimals and Fractions

Answers

A. 100%; 1.00

B.

Material	Percent	Fraction	Decimal
Plastic	25%	$\frac{1}{4}$	0.25
Food and yard waste	11%	$\frac{11}{100}$	0.11
Miscellaneous trash	20%	$\frac{1}{5}$	0.20
Paper	30%	$\frac{3}{10}$	0.30
Rubber and leather	8%	$\frac{2}{25}$	0.08
Metal	6%	$\frac{3}{50}$	0.06
Total	100%		1.00

C. 14%

D. 8%; 6%

E. metal, rubber and leather, food and yard waste, miscellaneous trash, plastic, paper

F. paper

1. The total for the percent had to equal a whole and 100% means the whole. The total for the decimals had to equal 1 since 100% can be expressed as 100 hundredths, which is 1.00.

2. a) $\frac{6}{8}$ is equivalent to $\frac{3}{4}$, which is also equivalent to $\frac{75}{100}$.

As a percent, this is written as 75%.

b) 0.3 is equivalent to $\frac{3}{10}$, which is also equivalent to $\frac{30}{100}$. As a percent, this is written as 30%.

3. For example, I used the percent column because the numbers were easier to compare.

4. a)

Type of Paper	Percent	Fraction	Decimal
Newspaper	50%	$\frac{1}{2}$	0.5
Magazines	40%	$\frac{2}{5}$	0.4
Other	10%	$\frac{1}{10}$	0.1
Totals	100%		1.0

b) other, magazines, newspaper

5. a) 40%, 4%, 44%, 10%; 4%, 10%, 40%, 44%

b) 50%, 47%, 30%; 30%, 47%, 50%

c) 75%, 25%, 60%, 85%; 25%, 60%, 75%, 85%

6. a)

Location	Fraction	Decimal	Percent
Brazil	$\frac{8}{25}$	0.32	32%
Indonesia	$\frac{11}{100}$	0.11	11%
Zaire	$\frac{9}{100}$	0.09	9%
Other	$\frac{12}{25}$	0.48	48%
Total		1.00	100%

b) Zaire, Indonesia, Brazil, Other

7. 20% are from Grade 7

8. All but $\frac{3}{8}$ of last year's campers are returning this year is more accurate.

For example, $1 - \frac{3}{8} = \frac{5}{8}$, so about $\frac{5}{8}$ of the campers will be returning; $\frac{5}{8} = \frac{60}{96}$, which is just

a bit more than $\frac{60}{100}$, which is 60%; $1 - \frac{1}{4} = \frac{3}{4}$, so $\frac{3}{4}$ of the campers are returning; $\frac{3}{4} = 75\%$;

60% is closer to 65% than 75% is.