

Working with Percent

April 28

Complete the following chart, by writing the number in its other two forms.

To convert from a fraction to a decimal, you divide the numerator by the denominator. To convert from a decimal to a percent, you multiply by 100. To convert from a percent to a decimal, you divide by 100.

Reduced Fraction	Decimal	Percent
$\frac{1}{4}$		
$\frac{5}{8}$		
$2\frac{1}{2}$		
$=\frac{93}{100}$	0.93	
	1	85%
$\frac{3}{5}$	0.6	60%
$\frac{6}{5}$	1.2	120%
$2\frac{3}{4}$	2.75	275%
$\frac{1}{20}$	0.05	5%
$\frac{13}{200}$	0.065	6½%
$=\frac{45}{100} = \frac{9}{20}$	0.45	45%
$\frac{3}{4}$	0.75	75%
$2\frac{2}{10} = 1\frac{1}{5}$	2.2	220%
	1.5	

		85%
$\frac{3}{5}$		
	1.2	
$2\frac{3}{4}$		
		5%
		$6\frac{1}{2}\%$
$= \frac{45}{100} = \frac{9}{20}$	0.45	
$\frac{3}{4}$		
		220%
$1\frac{1}{2}$ or $\frac{3}{2}$	1.5	150%
3	3.0	300%
$\frac{3}{5}$	0.6	60%
$\frac{7}{10}$	0.7	70%
$\frac{19}{50}$	0.38	38%
$\frac{3}{4}$	0.75	75%
$\frac{5}{10}$	0.5	50%
$\frac{3}{2}$	1.5	150%
$\frac{9}{8}$	1.125	112.5%
$\frac{7}{8}$	0.875	

c)  $\frac{55}{90}$       d)  $\frac{11}{60}$

3. Express each percent or decimal as a fraction in lowest terms.

- a) 0.65      b) 82%  
c) 14%      d) 0.25  
e) 0.40      f) 35%

$$\frac{14}{100} = \frac{7}{50}$$

4. Evaluate. Do not use a calculator. Express answers as fractions in lowest terms.

a)  $3 - \frac{2}{7} = \frac{21}{7} - \frac{2}{7} = \frac{19}{7}$

b)  $\frac{3}{4} - \frac{2}{3}$

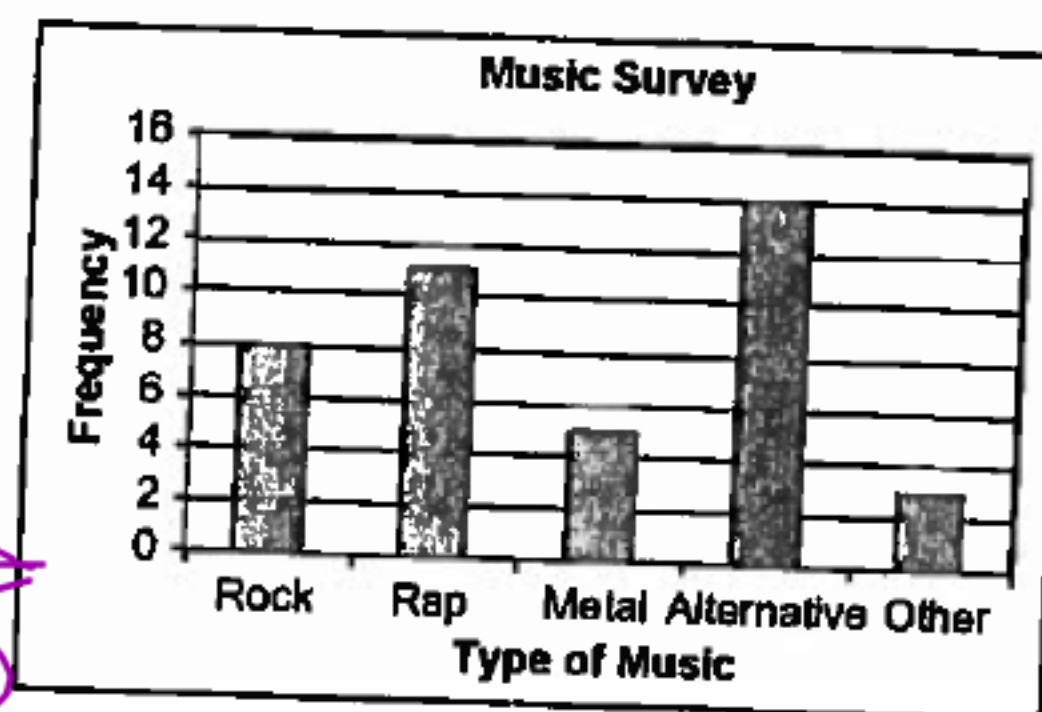
c) 60% of  $\frac{2}{3}$

d)  $\frac{1}{4} \times \frac{4}{7} \times \frac{7}{3}$

$$\frac{3}{5} \times \frac{2}{3} = \frac{6}{15} = \frac{2}{5}$$

- a) How many students are in the class?  
b) What fraction of the students chose a red card?  
c) Does your result for part b) make sense? Explain.

6. The bar graph shows the music preference of a group of students.



- a) How many students were surveyed?  
b) What is the most popular type of music in this group?  
c) What percent of students surveyed chose the most popular type of music?



**Fractions, Decimals, and Percents**

1. Express each fraction as a decimal without the use of a calculator.

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

b)  $\frac{7}{8}$

c)  $\frac{4}{5}$

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

2. Use a calculator to express each fraction as a decimal. Round to four decimal places.

a)  $\frac{19}{30}$

b)  $\frac{23}{49}$

c)  $\frac{55}{90}$

d)  $\frac{11}{60}$

3. Express each percent or decimal as a fraction in lowest terms.

a) 0.65

b) 82%

c) 14%

d) 0.25

e) 0.40

f) 35%

4. Evaluate. Do not use a calculator. Express answers as fractions in lowest terms.

a)  $3 - \frac{2}{7}$

b)  $\frac{3}{4} - \frac{2}{3}$

c) 60% of  $\frac{2}{3}$

**Interpreting Data**

5. Students in a mathematics class pick a card from a standard deck of 52 cards, record the suit, and return the card to the deck. The results are shown.

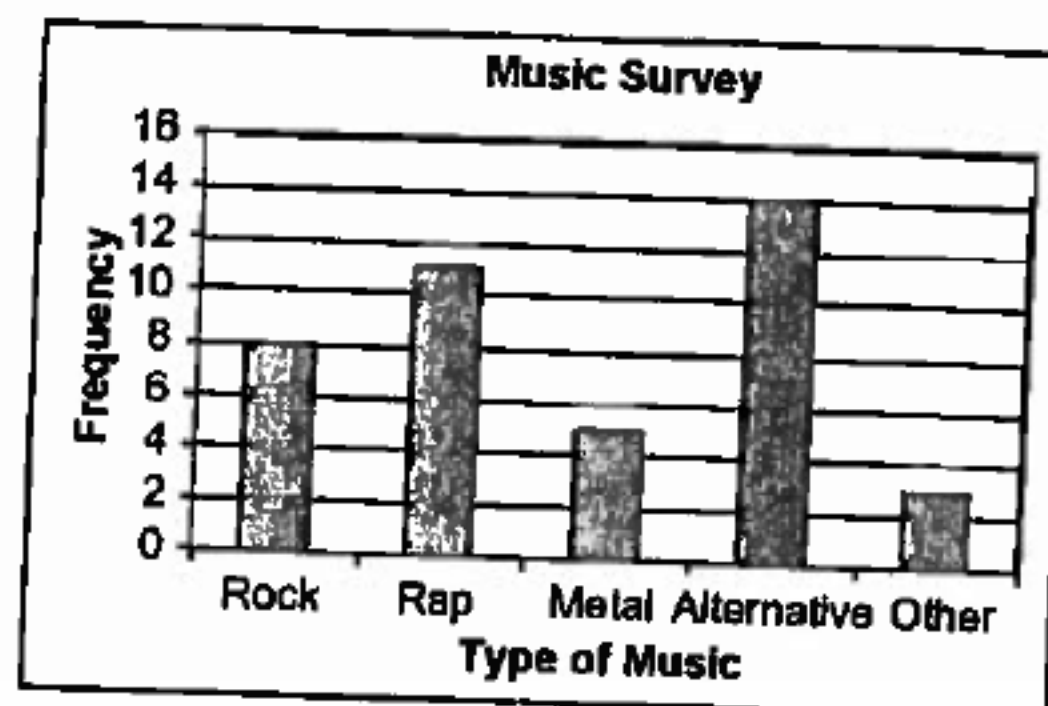
Result	Frequency
hearts	5
diamonds	9
spades	8
clubs	6

a) How many students are in the class?

b) What fraction of the students chose a red card?

c) Does your result for part b) make sense? Explain.

6. The bar graph shows the music preference of a group of students.



Handwritten notes in blue ink:

- 14
- 28
- 14/28 = 1/2
- yes, your
- Chan
- 1/2
- 20/28

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1-up

Find each percent change. \*\*State if it is an increase or a decrease.\*\*

1) From 55 to 62

$$62 - 55 = 7$$

$$\frac{7}{55} = 0.1272$$

12.7% increase

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1-up

Find each percent change. **\*\*State if it is an increase or a decrease.\*\***

2) From 41 to 50

$$\frac{9}{41} = 0.2195$$

$$= 21.95\%$$

$$\text{or } 22\%$$

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1-up

Find each percent change. \*\*State if it is an increase or a decrease.\*\*

3) From 94 to 37

57