Percent → Decimal
move the decimal
2 places to the left

5.1 Relating Fractions, Decimals and Percents – Notes

Percent → Fraction
$\frac{\%}{100}$

Example (1): Write each percent as a fraction and as a decimal.

Fraction → Decimal
top divided bottom

a) 7%

$= \frac{7}{100}$

$= 0.07$

b) 7.75%

$= \frac{7.75 \times 100}{100 \times 100}$

$= \frac{775 \div 5}{10000 \div 5}$ reducing

$= \frac{155 \div 5}{2000 \div 5}$

$= \frac{31}{400}$

$= 0.0775$

c) $7\frac{1}{4}\% = 7.25\%$

$= \frac{7.25 \times 100}{100 \times 100}$

$= \frac{725 \div 25}{10\,000 \div 25}$

$= \frac{29}{400}$

$= 0.0725$

d) $0.7\% = \frac{0.7 \times 10}{100 \times 10} = \frac{7}{1000} = 0.007$

Example (2): Write each fraction as a decimal and as a percent.

① Fraction → Decimal
top ÷ bottom

② decimal → percent
move decimal two places right.

a) $\frac{5}{8}$

$= 0.625$

$= 62.5\%$

b) $\frac{5}{6}$

$= 0.8333\ldots$

$= 83.\overline{3}\%$

c) $\frac{5}{1000}$

$= 0.005$

$= 0.5\%$

Example (3): Buffy had $23\frac{1}{2}$ out of 30 on her first math test.
She had $31\frac{1}{2}$ out of 40 on her second math test.
On which test did Buffy do better?

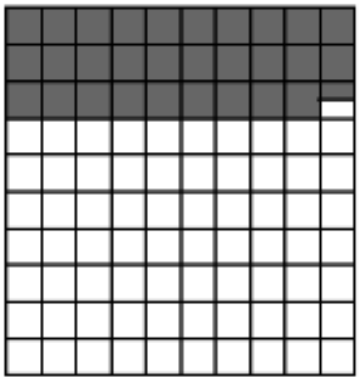
Buffy 1st: $\frac{23.5}{30} = 0.78333\ldots = 78.\overline{3}\%$

2nd: $\frac{31.5}{40} = 0.787 = 78.7\%$

She has a higher percentage on the 2nd test.

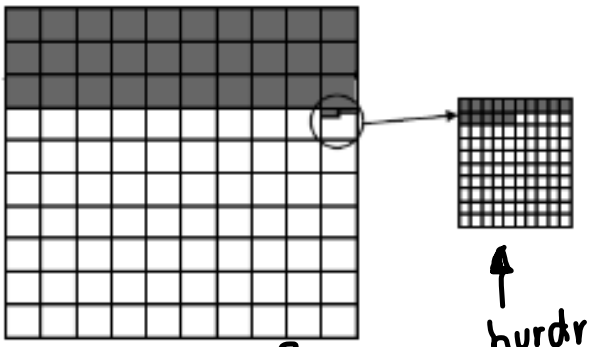
Example (4): What percentage is shaded?

a)



29.5%

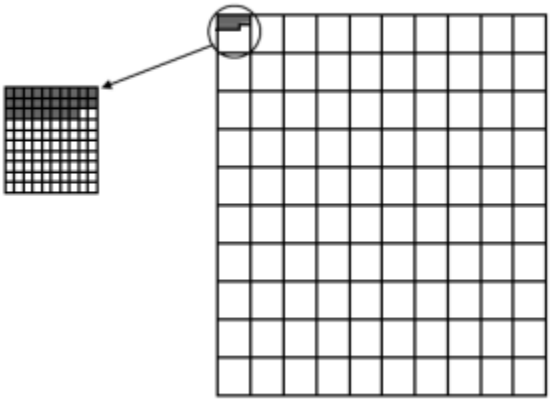
b)



30.15%

hundredths
0.01

c)



0.28%

d)

2.40%
= 2.4%