

Fractions, Decimals and Percentages

Name: _____

Date: _____

Concepts

- Approximation and Rounding a Number
- Dividing Fractions
- Expressing a Fraction as a Periodic Number and Vice Versa
- Expressing a Mixed Number as a Decimal Number and Vice Versa
- Fractional Notation (Fractions)
- The Common Denominator - Secondary 1, 2 and 3

Approximation and Rounding a Number

1. The water meter at the Parc Molson community pool reads 3048.472 m^3 at the end of the season.
 - a) Round this reading to the nearest whole cubic metre.
 - b) Round it to the nearest tenth of a cubic metre.
 - c) Round it to the nearest hundred cubic metres.
 - d) Truncate the reading at the tenths place, and say how your truncated value compares with your answer to b).

Dividing Fractions

2. Carry out each division. Give every answer in lowest terms, as a mixed number when it is greater than 1.

a) $\frac{3}{4} \div \frac{2}{5}$

b) $\frac{5}{6} \div \frac{10}{9}$

c) $2\frac{1}{4} \div \frac{3}{8}$

d) A community garden club has $4\frac{2}{3}$ kg of sunflower seed to divide into bags holding $\frac{7}{12}$ of a kilogram each. How many bags does the club fill?

Expressing a Fraction as a Periodic Number and Vice Versa

3.

a) Write $\frac{7}{11}$ in decimal notation, placing a bar over the period.

b) Write $\frac{5}{6}$ in decimal notation, placing a bar over the period.

c) Write $0.\overline{4}$ as a fraction in lowest terms.

d) Write $0.\overline{27}$ as a fraction in lowest terms.

Expressing a Mixed Number as a Decimal Number and Vice Versa**4.**

- a) Write $3\frac{5}{8}$ in decimal notation.
- b) Write $2\frac{7}{20}$ in decimal notation.
- c) Write 4.16 as a mixed number whose fraction is in lowest terms.
- d) Write 6.375 as a mixed number whose fraction is in lowest terms.

Fractional Notation (Fractions)**5.**

- a) Reduce $\frac{84}{126}$ to lowest terms.
- b) Complete the equivalent fraction: $\frac{5}{12} = \frac{\quad}{84}$.
- c) Which is greater, $\frac{7}{9}$ or $\frac{11}{14}$? Show how you know.
- d) In a school of 152 students, $\frac{3}{8}$ of them take the bus. How many students is that?

The Common Denominator - Secondary 1, 2 and 3**6.**

a) Compute $\frac{5}{12} + \frac{7}{18}$.

b) Compute $\frac{3}{4} - \frac{5}{8} + \frac{1}{6}$.

c) Place $\frac{5}{8}$, $\frac{7}{12}$ and $\frac{3}{5}$ in order from smallest to greatest, using a common denominator.

Synthesis — drawing on several sheets in this topic

7. A sugar shack has $19\frac{1}{2}$ litres of syrup left in its tank and bottles it in containers holding $\frac{5}{8}$ of a litre each.

- a) How many containers can be filled completely, and what fraction of a litre stays in the tank?
- b) Write that leftover volume in decimal notation.
- c) The producer records the volume actually bottled as a decimal number rounded to the nearest tenth of a litre. What does he write?

Want the harder problems and the worked solutions?

The *Challenge Problems* set and the *Answer Keys* for Fractions, Decimals and Percentages — with the reasoning written out in full — are available at tutorinmontreal.ca.