

Complete
Canadian 
Curriculum



Grade
3

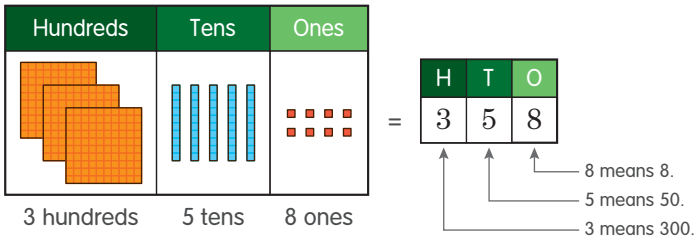
Math



Popular Canada

Number Sense and Numeration

- **Place Value** – the position of a digit that tells its value in a number
e.g. Place Value Chart



- **Rounding** – changing a number to a simpler number
e.g. Round **358** to the nearest ten.



358 is rounded to 360.

If the number is in the middle of the number line, round the number to the right end.

Steps

- 1st** Find the two multiples of 10 that 358 falls between.
- 2nd** Mark 358. 358 is closer to 360.

- **Addition of 3-digit Numbers with Regrouping**

e.g. $368 + 279 = \underline{\quad}$

Add the ones.

$$\begin{array}{r} 368 \\ + 279 \\ \hline \end{array}$$

7

$8 + 9 = 17$, so carry the 1 to the tens column.

Add the tens.

$$\begin{array}{r} 368 \\ + 279 \\ \hline \end{array}$$

47

$1 + 6 + 7 = 14$, so carry the 1 to the hundreds column.

Add the hundreds.

$$\begin{array}{r} 368 \\ + 279 \\ \hline \end{array}$$

647

$1 + 3 + 2 = 6$

So, $368 + 279 = \underline{647}$.

• **Subtraction of 3-digit Numbers with Borrowing**

e.g. $524 - 196 = \underline{\hspace{2cm}}$

Subtract the ones.

$4 < 6$; borrow 1 from the tens column.

$$\begin{array}{r} 1 \quad 14 \\ 52\cancel{4} \\ - 196 \\ \hline 8 \end{array}$$

$14 - 6 = 8$

Subtract the tens.

$$\begin{array}{r} 4 \quad 11 \\ \cancel{5}24 \\ - 196 \\ \hline 28 \end{array}$$

$11 - 9 = 2$

Subtract the hundreds.

$$\begin{array}{r} 4 \\ \cancel{5}24 \\ - 196 \\ \hline 328 \end{array}$$

$4 - 1 = 3$

So, $524 - 196 = \underline{328}$.

• **Multiplication** – repeated addition; combining equal groups

e.g. $2 + 2 + 2 + 2 + 2$
 $= 5 \text{ groups of } 2$
 $= 5 \times 2$
 $= \underline{10}$

We say "5 times 2".
 "x": multiplication sign

Vertical Multiplication

$$\begin{array}{r} 5 \\ \times 2 \\ \hline 10 \end{array}$$

At this level, you are expected to multiply up to 7×7 .

• **Division** – equal sharing of a quantity; the opposite of multiplication

e.g. $13 \div 3 = \underline{\hspace{1cm}}$ ← a division sentence

Think: 3 times of what number is closest to 13?

$$\begin{array}{l} 1 \times 3 = 3 \\ 2 \times 3 = 6 \\ 3 \times 3 = 9 \\ 4 \times 3 = 12 \leftarrow \text{closest to } 13 \end{array}$$

So, $13 \div 3 = \underline{4R1}$.

Long Division

$$\begin{array}{r} 4 \text{ R } 1 \\ 3 \overline{)13} \\ \underline{12} \\ 1 \\ \uparrow \\ \text{remainder} \end{array}$$

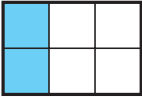


• **Fractions**

Using fractional names to describe the equal parts of a whole object or a set of objects

e.g.

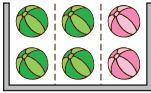
A Whole Object



← 6 equal parts;
2 parts blue

Two sixths is blue.

A Set of Objects

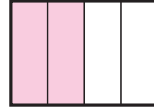


← 3 equal groups;
2 groups green

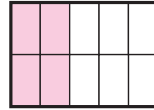
Two thirds are green.

Comparing fractions by drawing pictures

two fourths



four tenths



Two fourths is greater.

• **Money**

Ways to write the amount:



3 dollars 40 cents or \$3.40



Add to find the total.

| dollar | cent |
|--------|------|
| 2 | 59 |
| + | 4 16 |
| 6 | 75 |

The total is \$6.75.

Subtract to find the change.

| dollar | cent |
|---------------|---------------|
| 10 | 00 |
| - | 6 75 |
| 3 | 25 |

The change is \$3.25.

Measurement

- Time**

Telling the time in 2 ways

e.g.



25 min past 10 or 10:25

Finding time intervals
by using subtraction

e.g. $9:16$
↓
 $9:50$

$$\begin{array}{r} 50 \\ - 16 \\ \hline 34 \end{array}$$

The time interval is 34 min.

- Temperature** (measured in degree Celsius ($^{\circ}\text{C}$))

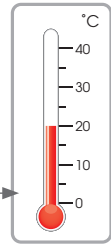
Water Temperature

- Water freezes at 0°C .
- Water boils at 100°C .

Air Temperature

- A warm day is about 20°C .

a thermometer



- Length**

Measuring the length, height, and distance using centimetres (cm), metres (m), and kilometres (km)

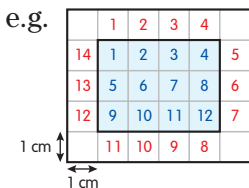
e.g. A road is about **10 km** long.

Units of Length

km ← big unit
m
cm ← small unit

- Perimeter and Area**

Perimeter is the distance around a shape. Area is the number of units a shape takes up.

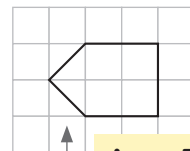


Perimeter:
14 cm

Area:
12

Finding Areas

Combine the parts to find the area.



Area: 5

Combine \triangleleft and ∇ to get a .



Geometry

• 2-D Shapes





Polygon – a flat shape with three or more straight sides

Congruent Shapes – shapes that have the same shape and size

Quadrilateral – a polygon with four sides

Right Angle – an angle that matches the corner of a sheet of paper

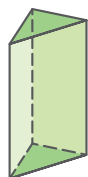
e.g.

| | | | |
|---|--|---|---|
| <p>Polygon</p>  | <p>Congruent Shapes</p>  | <p>Quadrilateral</p>  | <p>Right Angle</p>  |
|---|--|---|---|

• 3-D Figures

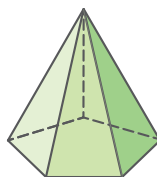
Naming 3-D figures by the shape of their base

e.g.



- has 2 bases
- shape of the base: triangle

a triangular prism



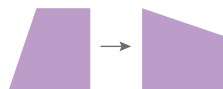


- has 1 base
- shape of the base: pentagon

a pentagonal pyramid

• Transformations

Three Types of Transformations:

| | | |
|---|--|--|
| <p>slide</p>  | <p>flip</p>  | <p>turn</p>  |
|---|--|--|

Patterns

- **Multiple** – the product of a given whole number multiplied by any other whole number

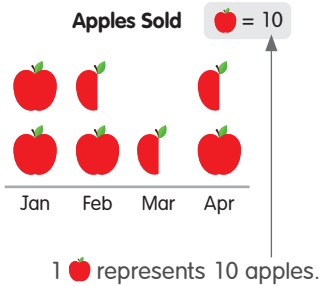
The multiples of a number on a hundreds chart form a pattern.

The multiples of 5 run in columns.

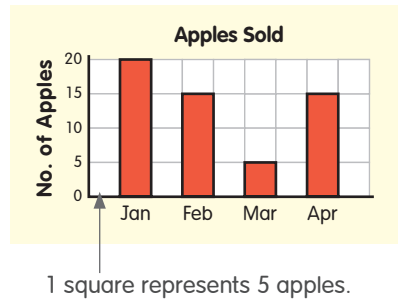
| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |

Graphs

Pictograph



Bar Graph

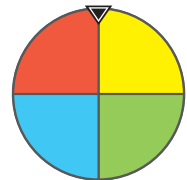


- **Mode** – the value that shows up most often on a graph
- The graphs above show that the mode is 15 apples.

Probability

- **Fairness of a Game** – related to the occurrence of equally likely outcomes

If a spinner is divided into equal parts and none of these parts appears more than once, it is a fair spinner.



If the spinner is spun 40 times, it is predicted that the pointer will land on each section 10 times.