Student Name: _____

Please write your name on *every* page.

How to Prepare for the NCC

The best way to prepare for the contest is to look at the past contests. You will be given 3 contest sections, depending on your year of birth. Please see the "Rules for Writing the NCC26" page for details.

Here is a list of topics that students may need to know. Not everything on the list will show up on the contest, and there could be topics on the contest that are not on the list.

List of Topics to Know

Consult the heading corresponding to your grade.

Grade 3/4 (2018 or 2017)

- Addition, subtraction, multiplication, division. Meaning of the words sum, difference, product, quotient, and remainder.
- The conventional order of operations. How brackets work.
- Triangles, squares, rectangles, and circles. Area and perimeter.
- Reading data from a graph.

Grade 5/6 (2016 or 2015)

All of the above, plus:

- Divisibility. What a prime number is.
- Prime factorization, GCD, LCM. Positive exponents.
- Adding, subtracting, multiplying, and dividing fractions.
- Trapezoids, rhombuses, and parallelograms. Equilateral, isosceles, and scalene triangles.

- Angles.
- The Pythagorean theorem.
- Mean, median, and mode. Basic probability.

Grade 7/8 (2014 or 2013)

All of the above, plus:

- Three-dimensional objects. Volume and surface area.
- Probability. Percentages.
- Knowing about “choose” and “permute” may be useful.
- The 2-dimensional Cartesian plane (with x- and y-axes)

Grade 9/10 (2012 or 2011)

All of the above, plus:

- Using variables, solving linear equations.
- Factorials. Rational and irrational numbers.