

Clarification of Expectations Regarding Number Facts

What are the number facts that students are expected to know?

Grade 1
<ul style="list-style-type: none">• Students begin to learn strategies for addition facts up to and including $9 + 9$ and related subtraction facts.• Students recall addition facts to a sum of 5 and related subtraction facts by the end of Grade 1.
Grade 2
<ul style="list-style-type: none">• Students apply strategies for addition facts up to and including $9 + 9$ and related subtraction facts.• Students recall addition facts up to and including $5 + 5$ and related subtraction facts by the end of Grade 2.
Grade 3
<ul style="list-style-type: none">• Students recall and apply addition facts up to and including $9 + 9$ and related subtraction facts.• Students recall multiplication facts up to and including 5×5 and related division facts by the end of Grade 3.
Grade 4
<ul style="list-style-type: none">• Students apply strategies for multiplication facts up to and including 9×9 and related division facts.• Students recall multiplication facts up to and including 7×7 and related division facts by the end of Grade 4.
Grade 5
<ul style="list-style-type: none">• Students recall and apply multiplication facts (multiplication tables) up to and including 9×9 and related division facts by the end of Grade 5.

Students investigate a variety of strategies for number operations, one of which must be the standard/traditional algorithm. Students are to use a strategy that they understand.

What is mastery of number facts?

The mathematics program of studies expects students to master their number facts. Mastery of number facts occurs when students understand and recall facts. This allows students to apply their knowledge to different and more complex computations and to be flexible in their thinking.

Example

If a child knows 3×8 is 24, then 3×16 becomes $3 \times 8 \times 2$ which is 48.

This example demonstrates flexibility of thinking in that students can extend their knowledge of a known fact and use it in an unfamiliar situation.

Recall of number facts is when students commit them to memory and retrieve them when needed. Students who simply recall facts without understanding have not achieved mastery. Similarly, students who understand the facts but are unable to recall them have not reached mastery.

What are multiplication tables?

Often the terms “multiplication tables” and “multiplication facts” are used to mean the same thing. Multiplication tables are one way to organize multiplication facts.

I need more information. Where can I find it?

Additional information that may be useful for parents can be found on the Mathematics web page at <https://education.alberta.ca/mathematics-k-6/program-supports/everyone/support-documents/>. Listed below are a few resources that may be of particular interest.

- [Strategies for Arithmetic Operations](#) is a fact sheet that provides samples of strategies for addition.
- [Sample Standard/Traditional Algorithms](#) is a fact sheet that provides samples of standard/traditional algorithms for all four operations.
- Clarification of Expectations Regarding Strategies and Maintenance is a fact sheet that clarifies expectations regarding strategies and maintenance of previous knowledge.
- [My Child's Learning: A Parent Resource](#) helps parents have a better understanding of Alberta's curriculum.