



TECHNOLOGY OLYMPICS SKILLS - ABACUS

These are the skills needed to achieve the highest rating possible using the abacus.

PLEASE NOTE: All levels build on the previous levels. There are **10** problems on each test.

Level 1 Beginning

The student will be able to:

1. Identify a number set on the abacus.
2. Name the place values to the 1000's place.
3. Set numbers to the hundreds place.
4. Clear complete Abacus after each problem.
5. Read Nemeth numbers. (Directions will be given orally. No taped version available.)

Level 1 Intermediate

The student will be able to complete:

1. Basic addition of one and two digit numbers without synthesis.
2. Basic subtraction of one and two digit numbers without synthesis.

Level 1 Advanced

The student will be able to complete:

1. Basic addition of three to four digit numbers without synthesis.
2. Basic subtraction of three to four digit numbers without synthesis.

Level 2 Beginning (including Level 1 all three divisions)

The student will be able to complete:

1. Addition of two and three digit numerals requiring synthesis.
2. Subtraction of two and three digit numerals requiring synthesis.

Level 2 Intermediate

The student will be able to complete:

1. Multiplication with one multiplier requiring no synthesis.
2. Multiplication problems with one multiplier requiring synthesis.

Level 2 Advanced

The student will be able to complete:

1. Multiplication problems with two multipliers requiring no synthesis.

Level 3 Beginning (including Level 1 and Level 2)

The student will be able to complete:

1. Multiplication problems with three or more multipliers requiring no synthesis.
2. Division problems with one divisor and no remainder.

Level 3 Intermediate

The student will be able to complete:

1. Multiplication problems with three or more multipliers requiring synthesis.
2. Division problems with two divisors with and without a remainder.

Level 3 Advanced

The student will be able to:

1. Problems involving decimals.
2. Division problems with three or more divisors with and without remainders.

REMINDER!

ALL answers must be numbered and recorded correctly, including decimals and remainders.

ALL numbers must be written in Nemeth if using Braille.

You will be REQUIRED to PROVIDE the following materials for the competition:

- **ABACUS**
- **MATERIALS TO RECORD ANSWERS**
- **TAPE RECORDER AND EARPLUGS/
HEADPHONES IF TAPED TESTS REQUESTED**

It is the policy of Region 10 Education Service Center not to discriminate on the basis of race, color, national origin, gender or handicap in its vocational programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 503 and 504 of the Rehabilitation Act of 1973, as amended. Region 10 Education Service Center will take steps to ensure that lack of English language skills will not be a barrier to admission and participation in all educational programs and services.