

# Junior Mental Calculation Online Competition 2020

## Possible Calculation Categories

For each category, questions may be easier or more difficult than those shown here.

There will be no explanation of the categories during the competition.

Category Name	Example Question	Example Answer
ADDITION	$8765 + 1234$	9999
SUBTRACTION	$8765 - 1234$	7531
MULTIPLICATION	$8765 \times 1234$	10816010
MULTIPLICATION	$12 \times 34 \times 56$	22848
DIVISION	$56088 / 123$	456
FACTORIZATION	88	2, 2, 2, 11
FRACTION ADDITION	$4 \frac{7}{8} + 3 \frac{5}{6}$	$8 \frac{17}{24}$
FRACTION SUBTRACT	$4 \frac{7}{8} - 3 \frac{5}{6}$	$1 \frac{1}{24}$
FRACTION MULTIPLY	$4 \frac{7}{8} \times 3 \frac{5}{6}$	$18 \frac{11}{16}$
FRACTION DIVISION	$4 \frac{7}{8} / 3 \frac{5}{6}$	$1 \frac{25}{92}$
EXACT SQUARE ROOT	1522756	1234
EXACT CUBE ROOT	1879080904	1234
NEXT SQUARE AFTER	1233333	1234321
NEXT CUBE AFTER	600000	614125
INEXACT SQUARE ROOT	1234 to 1 d.p.	35.1
INEXACT CUBE ROOT	123 to 2 d.p.	4.97
MIXED OPERATIONS	[various surprise formats]	[exact answers only]
NEAREST INTEGER	$2.15^5$	46
NEAREST INTEGER	$1234567 / 9876$	125
NEAREST INTEGER	[various surprise formats]	[integer answers only]

Tie-breaks will be sorted based on some surprise questions where the answer is an infinite decimal and the participant(s) with the closest answer(s) win.