



# KUMON AUSTRALIA & NEW ZEALAND

## MATHEMATICS (TEST B)

The success of students studying Kumon is directly related to the skills of the Instructor in both the instruction and content of the Kumon programme.

As part of the New Instructor Training, all Instructors will be required to work through the Kumon worksheets to improve their mathematics and English skills and become familiar with the learning materials.

This test aims to measure the current mathematical skill of prospective Instructors and assess proficiency in these subjects. The assessment will be based upon the number completed accurately within 30 minutes. A minimum of 70% accuracy is required to pass the test.

### Instructions:

Please. . .

- Complete the table below. Please include your name, date, start and finish times.
- Maximum time allowed is 30 minutes
- Show all working out
- No calculators may be used
- Attempt as many questions as you can

Name:	
Date:	
Start Time:	
Finish Time:	

**Level 2A**

- 1)  $7 + 4 =$
- 2)  $3 + 9 =$
- 3)  $8 + 6 =$
- 4)  $9 - 7 =$
- 5)  $10 - 4 =$

**Level A**

- 1)  $13 + 5 =$
- 2)  $6 + 17 =$
- 3)  $28 + 9 =$
- 4)  $14 - 9 =$
- 5)  $16 - 11 =$

**Level B**

- 1) 
$$\begin{array}{r} 39 \\ + 45 \\ \hline \end{array}$$
- 2)  $225 + 375 =$
- 3) 
$$\begin{array}{r} 63 \\ \square \square \\ + \square \square \\ \hline 120 \end{array}$$
- 4) 
$$\begin{array}{r} 403 \\ - 136 \\ \hline \end{array}$$
- 5)  $235 - 118 =$

**Level C**

- 1)  $8 \times 9 =$
- 2) 
$$\begin{array}{r} 54 \\ \times 8 \\ \hline \end{array}$$
- 3)  $72 \div 7 = \square \text{ r } \square$
- 4)  $56 \div 8 =$
- 5)  $6 \overline{)260}$

**Level D**

- 1) 
$$\begin{array}{r} 406 \\ \times 38 \\ \hline \end{array}$$
- 2)  $21 \overline{)1449}$
- 3) Write  $\frac{46}{11}$  as a mixed number

- 4) Reduce  $\frac{18}{24}$
- 5) Reduce  $\frac{34}{51}$

**Level E**

- 1)  $\frac{3}{5} + \frac{1}{5} =$

$$2) \frac{1}{6} + \frac{3}{4} =$$

$$3) 2\frac{2}{3} - 1\frac{1}{2} =$$

$$4) 1\frac{1}{5} \times \frac{5}{9}$$

$$5) 1\frac{1}{4} \div 3\frac{1}{8} =$$

**Level F**

$$1) \frac{1}{6} + \frac{1}{2} + \frac{1}{9} =$$

$$2) 10 - 3 \times 3 =$$

$$3) 3 - \frac{1}{2} \div \frac{1}{5} =$$

$$4) 18 \times \boxed{\phantom{00}} = 6$$

$$5) \begin{array}{r} 0.6 \\ \times 0.5 \\ \hline \end{array}$$

### Level G

$$1) -9 - (-6) =$$

$$2) \left(-\frac{1}{6} + \frac{1}{4}\right) \div -2 =$$

$$3) \begin{array}{l} 5x + y + 3 + x - 2y + 5 \\ = \end{array}$$

$$4) \begin{array}{l} \text{Solve for } x \\ 3x + 5 = 12 \end{array}$$

5) Solve for x

$$\frac{x}{3} - 1 = 2 - x$$

### Level H

1) Solve for X

$$\frac{1-x}{3} = a$$

2) Solve to find X and Y

$$3x + 2y = 7$$

$$x - 2y = 5$$

3) Solve to find x and y

$$2x + 3y = 22$$

$$y = x + 4$$

4) Solve the inequality

$$3x - 4 < 5x - 2$$

5) Expand the brackets and simplify

$$3x(x + 4) + 3x(2x - 5)$$

**Level I**

1) Expand and simplify  
 $(x - 5)(2x + 3)$

2) Factorise  $3x - 18xy$

3) Factorise the quadratic

$$x^2 - 7x + 12$$

4) Simplify  $\sqrt{20} \sqrt{18}$

5) Solve the equation

$$(x - 2)^2 = 25$$