



Math Foundations 2

TESTS MASTERY OF MATH FOUNDATIONS 1 • 20 ITEMS • 40-55 MINUTES • NO CALCULATOR

This diagnostic probes whether counting, place value to hundreds and regrouping are secure enough to carry multiplication, division and fractions. It is not a test to pass or fail. Its only purpose is to show a tutor which ideas are firm and which need building, so the first weeks of tutoring are spent on the right things.

BEFORE YOU BEGIN

Work without a calculator. Drawings, tallies, number lines and jottings are all welcome - we want to see thinking, not just answers.

If a question is unfamiliar, leave it blank rather than guessing. A blank tells us more than a guess does.

An adult may read questions aloud, but should not explain the mathematics or hint at a method.

There is no time limit that matters. If a student is tired, stop and finish later.

SECTION A Multiple choice

10 items

Choose one answer. If you are unsure, leave it blank rather than guessing.

01 What is the value of the 5 in 452?

- A) 4
- B) 500
- C) 5
- D) 50

02 Which number is largest?

- A) 213
- B) 312
- C) 231
- D) 132

03 What is $38 + 47$?

- A) 95
- B) 715
- C) 85
- D) 75



- 04** What is $62 - 25$?
- A) 37
 - B) 27
 - C) 47
 - D) 43
- 05** Which of these shows 4 rows of 5?
- A) $4 + 4 + 4 + 4 + 4$
 - B) $5 + 5 + 5 + 5$
 - C) $5 - 4$
 - D) $4 + 5$
- 06** Which number of sweets can be shared equally between two children with none left over?
- A) 34
 - B) 27
 - C) 45
 - D) 51
- 07** Ama counts: 5, 10, 15, 20, _____. What comes next?
- A) 21
 - B) 24
 - C) 25
 - D) 30
- 08** Kofi has three coins: 25c, 10c and 5c. How much does he have?
- A) 40c
 - B) 35c
 - C) 45c
 - D) 30c
- 09** A lesson starts at 3:00 and lasts 45 minutes. What time does it end?
- A) 4:45
 - B) 4:15
 - C) 3:09
 - D) 3:45



10 A rectangle is cut into 4 equal parts. Esi shades 1 part. What fraction is shaded?

- A) $\frac{3}{4}$
- B) $\frac{1}{4}$
- C) $\frac{4}{1}$
- D) $\frac{1}{3}$

SECTION B Student solving

6 items

Show your working. We are reading the method, not only the answer.

11 Work out $56 + 38$. Show your method, whatever method you use.

12 Ama has 43 stickers. She gives 17 to her brother. How many are left? Show your working.

13 Draw an array that shows 3 rows of 6. Write an addition sentence for it and give the total.



- 14 Kwame counts in fives: 5, 10, 15, and keeps going until he reaches 40. How many fives did he count? Show how you know.

- 15 Write the number that is 10 more than 274, and the number that is 10 less. Show your thinking.

- 16 A ribbon is 30 cm long. Esi cuts off 12 cm. She cuts what is left into two equal pieces. How long is each piece? Show your working.

SECTION C Error analysis

4 items

Each shows work containing a mistake. Find the FIRST incorrect step, say what the student believed, and give the correct answer.

- 17 Find the first incorrect step. Say what the student believed, then give the correct answer.

$$\begin{array}{r} 38 \\ + 47 \\ \hline 715 \end{array}$$



- 18** Find the first incorrect step and correct it.

$$\begin{array}{r} 62 \\ - 25 \\ \hline 43 \end{array}$$

- 19** Find Ama's mistake and say what she should have answered.

Ama counts her stickers in fives:
5, 10, 15, 20, 25
Ama says: 'I counted 25 fives.'

- 20** Find Kofi's mistake and give the correct total.

Kofi has two coins: 25c and 10c
Kofi wrote: $25c + 10c$
Kofi's answer: 2510c

What happens next

Bring this completed sheet to your consultation. A tutor reads it alongside a short conversation with the student and any school work you choose to share, then recommends a level. No placement is ever decided by a score on its own, and no student is placed without a tutor's approval.