

BIDMAS / Order of Operations

Name:

Date:

INQUIRY

A Nanjing market vendor says: buy 3 dumplings at 5 yuan each plus 2 yuan sauce. Is the total 17 yuan or 21 yuan? It depends on the order!

Discuss with your partner. Write your initial ideas below:

Key Vocabulary

Term	Definition
BIDMAS	Brackets, Indices, Division/Multiplication, Addition/Subtraction.

Part A — Calculate

1. Calculate: $6 + 2 \times 5$ [1 marks]

Show your working:

2. Calculate: $(8 - 3)^2 + 1$ [2 marks]

Show your working:

3. Calculate: $20 - 4 \times 3 + 2$ [2 marks]

Show your working:

4. Calculate: $3 \times (7 + 5) / 4$ [2 marks]

Show your working:

5. Calculate: $2^3 + 4 \times (6 - 2)$ [2 marks]

Show your working:

Part B — Insert Brackets

6. Insert brackets to make each true: (a) $3 + 4 \times 2 = 14$ (b) $20 - 5 \times 2 = 30$ (c) $8 + 12 / 4 + 2 = 5$. [3 marks]

Part C — Real World

7. Dumplings: $3 \times 5 + 2$ (3 dumplings at 5 yuan + 2 yuan sauce). What is the correct total? Explain why $3 \times (5 + 2)$ gives a different answer. [3 marks]

Show your working: