



## Foundation / Higher Tier

# Order of operations (BIDMAS)

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a  $\pi$  button, take the value of  $\pi$  to be 3.142 unless the question instructs otherwise.

### Information

- The marks for **each** question are shown in brackets- *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
  - Keep an eye on the time.
  - Try to answer every question.
  - Check your answers if you have time at the end.
-

1. (a) Calculate  $3 + 4 \times 5$

23

(1)

(b) Calculate  $10 - 2 \times 3$

10-6

4

(1)

(c) Calculate  $6 + 8 \div 2$

6+4

10

(1)

(d) Calculate  $15 - 9 \div 3$

15-3

12

(1)

(e) Calculate  $(3 + 5) \times 4$

8x4

32

(1)

(Total for Question 1 is 5 marks)

2. (a) Calculate  $4 + 6 \times 3 - 5$

$$4 + 18 - 5 = 17$$

17

(1)

(b) Calculate  $12 - 8 \div 2 + 3$

$$12 - 4 + 3 = 11$$

11

(1)

(c) Calculate  $5 \times 4 + 6 \div 2$

$$20 + 3$$

23

(1)

(d) Calculate  $18 \div 3 + 7 \times 2$

$$6 + 14$$

20

(1)

(e) Calculate  $3 + 2^2$

$$3 + 4$$

7

(1)

(Total for Question 2 is 5 marks)

3. (a) Calculate  $6 + 3^2 \times 2$

$$6 + 9 \times 2$$
$$6 + 18$$

24

(1)

(b) Calculate  $5 \times 2^3 + 4$

$$5 \times 8 + 4$$

44

(1)

(c) Calculate  $(5 - 1)^3$

$$4^3 = 64$$

64

(1)

(d) Calculate  $-3^3$

-27

(1)

(e) Calculate  $(-3)^2$

9

(1)

(Total for Question 3 is 5 marks)