# AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES SCHOOLS ENRICHMENT CENTRE (AIMSSEC) <br> <br> AIMING HIGH 

 <br> <br> AIMING HIGH}

AIMSSEC

## ORDER OF OPERATIONS

When we talk to each other we need to have a common understanding of what the language means. It's the same in mathematics. We need to have rules in mathematics so everyone can understand what other people are doing.

The order of operations is:

## Brackets Indices Division Multiplication Addition Subtraction

Draw arrows to match the calculations to the correct answers. One is done for you.

| 1. | Answers in the <br> wrong order |
| :--- | :---: |
| $2(3+4)$ | 34 |
| $2 \times 3+4 \times 7$ | 70 |
| $2(3+4) \times 7$ | 34 |
| $(2 \times 3+4) \times 7$ | 14 |
| $(2 \times 3)+(4 \times 7)$ | 62 |
| $2 \times(3+4 \times 7)$ | 98 |


| 2. | Answers in the <br> wrong order |
| :--- | :---: |
| $4(2+3)$ | 100 |
| $4 \times 2+3 \times 5$ | 55 |
| $4(2+3) \times 5$ | 23 |
| $(4 \times 2+3) \times 5$ | 68 |
| $(4 \times 2)+(3 \times 5)$ | 20 |
| $4 \times(2+3 \times 5)$ | 23 |

Make your own table with similar calculations and then exchange it so you each solve a puzzle created by another learner.

## BIDMAS GAME

This is a Pelmanism type game. For two players, cut out the cards on page 2 and put them on a table face down. Players take turns to turn over the cards and, if the cards chosen are a pair then the player keeps them. If the cards turned over are not a pair then they must be turned face down in the same position before the next player has a turn. The winner is the first to get two pairs. If they get one pair each then the winner is the player who gets the second pair because there are only 3 pairs.
For two or more players use the cards on pages 2 and 3 so that there are 6 pairs altogether. In this game the winner is the player who gets the most pairs.

## HELP

Cut out the cards on pages 2 and 3 and match the pairs of cards.

NEXT Draw arrows to match the calculations with the correct answers.

|  | Answers in the <br> wrong order |
| :--- | :---: |
| $2^{3}+3^{2}$ | 4 |
| $(2+3)^{3}$ | 64 |
| $\left(3 \times 4^{2}\right) / 12$ | 17 |
| $\left(12 \times 4^{2}\right) / 3$ | 625 |
| $2^{4}+3^{4}$ | 125 |
| $(2+3)^{4}$ | 97 |

## BIDMAS NEXT GAME

Play the game as before with the cards on pages 2,3 and 4 so that there are 9 pairs of cards.

Make more cards to make the game more interesting.

Cut out the cards and then match the calculations to their answers.

| 1. | Answers in the wrong order |
| :---: | :---: |
| $2(3+4)$ | 34 |
| $2 \times 3+4 \times 7$ | 70 |
| $2(3+4) \times 7$ | 34 |
| $(2 \times 3+4) \times 7$ | 14 |
| $(2 \times 3)+(4 \times 7)$ | 62 |
| $2 \times(3+4 \times 7)$ | 98 |

Cut out the cards and then match the calculations to their answers.

| 2. | Answers in the wrong order |
| :---: | :---: |
| $4(2+3)$ | 100 |
| $4 \times 2+3 \times 5$ | 55 |
| $4(2+3) \times 5$ | 23 |
| $(4 \times 2+3) \times 5$ | 68 |
| $(4 \times 2)+(3 \times 5)$ | 20 |
| $4 \times(2+3 \times 5)$ | 23 |

Cut out the cards and then match the calculations to their answers.

|  | Answers in the wrong order |
| :---: | :---: |
| $2^{3}+3^{2}$ | 4 |
| $(2+3)^{3}$ | 64 |
| $\left(3 \times 4^{2}\right) / 12$ | 17 |
| $\left(12 \times 4^{2}\right) / 3$ | 625 |
| $2^{4}+3^{4}$ | 125 |
| $(2+3)^{4}$ | 97 |

Make more BIDMAS matching cards

|  |  |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |

