



WORKSHEET 7

Year 6 Mathematics: Number & Patterns

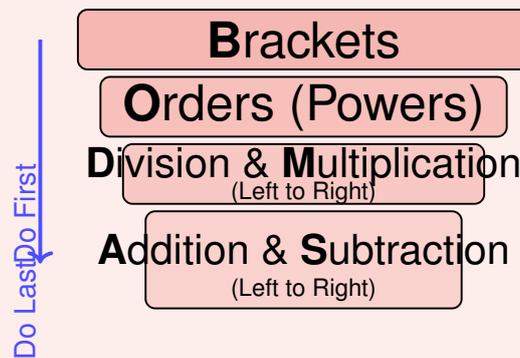
Order of Operations

Focus: Multiplication & Division before Addition & Subtraction

Name: _____ Date: _____

BODMAS/BIMDAS Rules

Remember the order:



Key Point: Multiplication and Division are done BEFORE Addition and Subtraction!

Section 1: Basic Order (Fluency)

1. Calculate:

$$3 + 4 \times 2$$

Answer: _____



2. Calculate:

$$20 - 10 \div 2$$

Answer: _____

3. Calculate:

$$5 \times 6 + 2$$

Answer: _____

4. Calculate:

$$18 \div 3 + 4$$

Answer: _____

5. Calculate:

$$7 + 8 \times 2$$

Answer: _____

6. Calculate:

$$30 - 6 \times 2$$

Answer: _____



OPERATION EXPERT!



Operation Owl

Why did the student do multiplication first?
Because that's the ORDER of the day!

Section 2: True or False? (Reasoning)

7. True or False:

$$4 + 5 \times 2 = 18$$

Answer: _____

8. Explain why

$$10 - 2 \times 3 = 4$$

, not 24.

Answer: _____

9. Show the working for:

$$12 + 6 \div 3$$

Visual Grouping Hint:

$$12 + 6 \div 3$$

(Do division first!)

Answer: _____



10. True or False:

$$16 \div 4 + 2 = 6$$

Answer: _____

11. Calculate and show working:

$$5 + 3 \times 4 - 2$$

Answer: _____

12. Which should be calculated first in this equation:

$$20 - 8 \div 2 + 5$$

?

Answer: _____

BODMAS BOSS!



BODMAS Bear

What did the plus sign say to the multiplication sign?

You always get to go first!

Section 3: Missing Operations (Challenge)



13. Fill in the missing operation (+, −, ×, or ÷) to make this true:

$$5 \quad \underline{\quad} \quad 5 \quad \underline{\quad} \quad 5 = 30$$

Answer: _____

14. Fill in the missing operation to make this true:

$$10 \quad \underline{\quad} \quad 2 \quad \underline{\quad} \quad 3 = 16$$

Answer: _____

15. What is the largest answer you can get using:

$$2 \quad _ _ \quad 3 \quad _ _ \quad 4$$

(You can use any operations, but follow BODMAS!)

Answer: _____

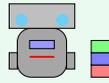
16. Create your own equation using three different numbers and two operations. Show the correct answer.

Your Equation: _____

Answer: _____



PUZZLE MASTER!



Block Bot

Why did the numbers go to the gym?

To work on their ORDER!

Excellent Work! Check your answers on the next page.





ANSWER KEY

Worksheet 7: Order of Operations





Section 1: Basic Order

1. 11

Working: $4 \times 2 = 8$, then $3 + 8 = 11$

2. 15

Working: $10 \div 2 = 5$, then $20 - 5 = 15$

3. 32

Working: $5 \times 6 = 30$, then $30 + 2 = 32$

4. 10

Working: $18 \div 3 = 6$, then $6 + 4 = 10$

5. 23

Working: $8 \times 2 = 16$, then $7 + 16 = 23$

6. 18

Working: $6 \times 2 = 12$, then $30 - 12 = 18$

Section 2: True or False

7. False (Correct answer is 14)

Working: $5 \times 2 = 10$, then $4 + 10 = 14$

8. Because multiplication is done before subtraction. First calculate $2 \times 3 = 6$, then $10 - 6 = 4$.

9. 14

Working: $6 \div 3 = 2$, then $12 + 2 = 14$

10. True

Working: $16 \div 4 = 4$, then $4 + 2 = 6$

11. 15

Working: $3 \times 4 = 12$, then $5 + 12 = 17$, then $17 - 2 = 15$

12. $8 \div 2$ should be calculated first (division before addition and subtraction)

Section 3: Missing Operations

13. $5 + 5 \times 5 = 30$

Working: $5 \times 5 = 25$, then $5 + 25 = 30$

14. $10 + 2 \times 3 = 16$

Working: $2 \times 3 = 6$, then $10 + 6 = 16$

15. 14 (using $2 + 3 \times 4$)

Working: $3 \times 4 = 12$, then $2 + 12 = 14$

16. Student's own answer (Teacher: Check working is correct)



WORKSHEET 8

Year 6 Mathematics: Number & Patterns

Order of Operations

Focus: Brackets and Left-to-Right Rule

Name: _____ Date: _____

Brackets Change Everything!

The Power of Brackets:

Brackets tell you to do that calculation FIRST, before anything else.

Examples:

- Without brackets: $3 + 4 \times 2 = 3 + 8 = 11$
- With brackets: $(3 + 4) \times 2 = 7 \times 2 = 14$

Left-to-Right Rule: When operations have the same priority (like \times and \div), work from LEFT to RIGHT.

Example: $20 \div 5 \times 2 = 4 \times 2 = 8$ (NOT $20 \div 10 = 2$)

Section 1: Using Brackets (Fluency)

1. Calculate:

$$(3 + 4) \times 2$$

Answer: _____

2. Calculate:

$$20 \div (2 + 3)$$



Answer: _____

3. Calculate:

$$(10 - 6) \times 5$$

Answer: _____

4. Calculate:

$$30 - (4 \times 5)$$

Answer: _____

5. Calculate:

$$(8 + 2) \div 5$$

Answer: _____

6. Calculate:

$$7 \times (6 - 2)$$

Answer: _____

BRACKET CHAMPION!



Bracket Buddy

Why did the bracket feel important?
Because it always comes FIRST in the order!



Section 2: Insert Brackets (Reasoning)

7. Insert brackets to make this statement true:

$$10 - 3 \times 2 = 14$$

Answer: _____

8. Insert brackets to make this statement true:

$$5 + 5 \times 2 = 20$$

Answer: _____

9. Insert brackets to make this statement true:

$$20 \div 4 + 1 = 4$$

Answer: _____

10. Insert brackets to make this statement true:

$$6 \times 3 - 2 = 6$$

Answer: _____

11. Without brackets: $12 - 4 \times 2 = ?$

With brackets: $(12 - 4) \times 2 = ?$



Show both answers.

Answer (without): _____ **Answer (with):** _____

BRACKET BOSS!



Super Bracket

What's a bracket's favourite sport?
Boxing... because they group things together!

Section 3: Left-to-Right Rule (Challenge)

12. Calculate:

$$20 \div 5 \times 2$$

(Remember: Division and Multiplication have equal priority, so work LEFT to RIGHT!)

Answer: _____

13. Calculate:

$$24 \div 6 \div 2$$

Answer: _____

14. Calculate:

$$3 \times 4 \div 2$$



Answer: _____

15. Calculate:

$$(15 - 5) \div 2 + 3 \times 2$$

Answer: _____

16. The Four Fours Challenge! Create an equation using four 4s and any operations (including brackets) that equals 1.

Example format: $(4 + 4) \div (4 + 4) = 1$

Your Answer: _____

17. Using the numbers 2, 3, and 4 once each, and any operations, create an equation with the largest possible answer. Show your working.

Your Equation: _____

Answer: _____

ORDER GENIUS!

BODMAS



Operation Trophy

Why did the mathematician love brackets?
Because they made everything SO much clearer!

Outstanding Work! Check your answers on the next page.



ANSWER KEY

Worksheet 8: Brackets and Left-to-Right





Section 1: Using Brackets

1. 14

Working: $(3 + 4) = 7$, then $7 \times 2 = 14$

2. 4

Working: $(2 + 3) = 5$, then $20 \div 5 = 4$

3. 20

Working: $(10 - 6) = 4$, then $4 \times 5 = 20$

4. 10

Working: $(4 \times 5) = 20$, then $30 - 20 = 10$

5. 2

Working: $(8 + 2) = 10$, then $10 \div 5 = 2$

6. 28

Working: $(6 - 2) = 4$, then $7 \times 4 = 28$

Section 2: Insert Brackets

7. $(10 - 3) \times 2 = 14$

Working: $(10 - 3) = 7$, then $7 \times 2 = 14$

8. $(5 + 5) \times 2 = 20$

Working: $(5 + 5) = 10$, then $10 \times 2 = 20$

9. $20 \div (4 + 1) = 4$

Working: $(4 + 1) = 5$, then $20 \div 5 = 4$

10. $6 \times (3 - 2) = 6$

Working: $(3 - 2) = 1$, then $6 \times 1 = 6$

11. Without brackets: $12 - 4 \times 2 = 4$ (multiply first: $4 \times 2 = 8$, then $12 - 8 = 4$)

With brackets: $(12 - 4) \times 2 = 16$ (brackets first: $12 - 4 = 8$, then $8 \times 2 = 16$)

Section 3: Left-to-Right Rule

12. 8

Working: $20 \div 5 = 4$ (left first), then $4 \times 2 = 8$

13. 2

Working: $24 \div 6 = 4$ (left first), then $4 \div 2 = 2$

14. 6

Working: $3 \times 4 = 12$ (left first), then $12 \div 2 = 6$

15. 11

Working: $(15 - 5) = 10$, then $10 \div 2 = 5$, then $3 \times 2 = 6$, then $5 + 6 = 11$

16. Multiple solutions possible:

- $(4 + 4) \div (4 + 4) = 1$



Phenomenal Achievement!

You've mastered the Order of Operations!
Keep following BODMAS in all your calculations!

