

Rules for the Order of Operations

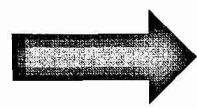
Please Excuse My Dear Aunt Sally

Parenthesis- Do any operations in parenthesis

Exponents- Do any exponents

Multiplication

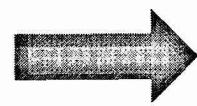
Division



Do all multiplication and division in order from left to right

Addition

Subtraction



Do all addition and subtraction in order from left to right

Example:

$$12 + 4 \times (11 - 6)$$

$$12 + 4 \times 5$$

$$12 + 20 = 32$$

*Remember to only do one step at a time! ☺

Order of Operations

Name: _____

Show all work + circle your answer

Date: _____

Class: _____

RIVER RAPIDS

Solve each problem. Shade in the grid boxes that contain your solutions. Read across the remaining unshaded boxes to spell out the answer to the question.

 **Tip:** Follow the **order of operations** when solving problems that involve a series of calculations. The order to complete the calculations are powers (exponents) first, then multiplication and division, and then addition and subtraction.

For example, $34 - 3^2 \times 2 \rightarrow 34 - 9 \times 2 \rightarrow 34 - 18 \rightarrow 16$.

1. $4 + 6 - 10 \div 2$

10. $4^3 - 4 - 8 \times 7$

2. $45 \div 3 \times 20 + 42$

11. $10 \times 3 + 1 - 16$

3. $6 \times 5 - 7 \times 3$

12. $13 + 8^2 - 24$

4. $16 - 6 + 2 \div 2$

13. $54 \div 27 \times 3 + 6$

5. $50 \times 2 \div 10^2$

14. $19 - 2^2 \times 4$

6. $34 \div 17 + 4$

15. $9 + 5 - 16 \div 4$

7. $8^2 \div 16 \times 2$

16. $3 \times 6 + 2 + 5$

8. $17 \times 2 - 102 \div 3$

17. $9 \times 3 \div 3 + 4^2 - 1$

9. $6 - 2 + 10 \times 2^2$

18. $6 \times 2 + 14 \div 7$

H 15	P 12	I 0	A 29	J 316	F 67	G 1	Y 8
R 66	C 25	D 53	F 9	K 11	I 2	U 3	Q 4
X 44	L 24	G 6	C 55	Z 10	A 101	P 14	I 5

Answer: _____

GOOD OWL TIME

Solve each equation. To spell out the answer to the riddle, write the letter of the corresponding problem above the given answer.

 **Tip:** When using the **order of operations**, solve what's in parenthesis first. For example, $(13 + 7) - 2^2 \times 3 \rightarrow 20 - 2^2 \times 3 \rightarrow 20 - 4 \times 3 \rightarrow 20 - 12 = 8$.

- A. $24 - 12 \div 2$
- B. $(3 \times 20) - 3^2 + 45$
- C. $25 - (11 \times 2) + 6$
- D. $14 - 6 \div 2 + 5$
- E. $64 \div (9 \times 3 - 19)$
- F. $18 + 3 - 12 \div 6$
- G. $6^2 \div 9 \times 5$
- H. $40 \times 3 + 12 - 1$
- I. $4 + 10 \times 2^3 - 16$
- J. $100 - [108 \div (9 - 5)]$

- K. $51 \div 17 + 4 \times 3$
- L. $11 \times 11 + 121 \div 11 - 11$
- M. $3^3 \div 3 + 169 \div 13$
- N. $4^2 \times 5 \times 6 \div 3 + 10$
- O. $100 \div 5^2 + 10$
- P. $42 \div 3 + (6^2 - 8)$
- R. $21 + 10^2 \div 10$
- S. $6 \times 5 + 32 \div 4$
- T. $8 - 6 + 27 \div 3^2$
- U. $7^2 + 10 - 2 \times 5$

Answer:

_____ _____ _____ _____ _____ _____
 18 5 18 131 14 14 5 8 121