Order of operations worksheet. Professor Luis Fernández

Remember: When several operations are involved in a mathematical expression, it is understood that they are performed in the following order:

- Exponents and roots.
- Multiplication and division, **left to right** in order of appearance.
- Addition and subtraction, **left to right** in order of appearance.

Also, whenever there are **grouping symbols**, do the operations **inside** first. Grouping symbols are:

- Round parenthesis "(   )".
- Square parenthesis "[   ]".
- Braces "{   }".
- Any horizontal line, such as $\sqrt{\quad}$, or a fraction line, above or below an expression.

Practice exercises

1. $11 - 72 \div 9$

2. $18 - 42 \div 7$

3. $9 \cdot 4 + 3$

4. $12 \cdot 5 + 20$

5. $18 - 6 + 7$

6. $13 - 5 - 1 + 3 \div 9$

7. $5 \cdot 6 - (15 - 6)$

8. $3 \cdot 9 - (26 - 1)$

9. $9 - 3 - 1$

10. $17 - 10 - 6$

11. $3 \cdot 4 \cdot 2 \div 4 + 3$

12. $2 \cdot 5 \cdot 10 \div 5 + 3$

13. $(2 \cdot 2)^2$

14. $(5 \cdot 2)^2$

15. $13 + 0 \div 7$

16. $9 + 10 \div 5$

17. $[12 \div (4 \div 2)]^2$

18. $[32 \div (8 \div 2)]^2$

19. $12 + 3 \cdot 2 + (3 + 5 \cdot 2)$

20. $9 + 4 \cdot 5 + (8 + 4 \cdot 4)$

21. $13 + 2(5 - 3)$

22. $16 + 5(9 - 4)$

23. $12 \div 3 \cdot 4$

24. $25 \div 5 \cdot 5$