

The Order of Operations and Equations

- **First solve whatever is inside parentheses.**
- **Next, solve multiplications and divisions, from left to right.**
For example, in $36 \div 9 + 2 \times 5$, solve $36 \div 9$ first (and then 2×5 , before the addition).
- **Last, solve additions and subtractions, from left to right.**
For example, in $200 - 50 + 30 + 7$, solve $200 - 50$ first.

1. Solve what is in the parentheses first. You can enclose the operation to be done first in a “bubble.”

$\begin{array}{r} (36 + 4) \div (5 + 5) \\ \backslash \quad / \quad \backslash \quad / \\ = 40 \div 10 \\ = 4 \end{array}$	a. $(50 - 2) \div (3 + 5)$	b. $20 \times (1 + 7 + 5)$
	c. $2 \times (600 \div 60) + (19 - 8)$	d. $180 \div (13 - 7 + 3)$

2. Solve. When there are many multiplications and divisions, do them from left to right.

$\begin{array}{r} 24 \div 3 \times 2 \div 4 \\ \backslash \quad / \\ = 8 \times 2 \div 4 \\ \backslash \quad / \\ = 16 \div 4 = 4 \end{array}$	a. $36 \div 4 \div 3$	b. $1,200 \div 4 \times 5 \div 3$
	c. $7 \times 90 \div 2 \times 2 \div 10$	d. $5 \times 6 \div 3 \div 2 \times 20$

3. Solve in the right order. You can enclose the operation to be done first in a “bubble” or a “cloud.”

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| a. $(8 + 16) \div 3 \div 2 = \underline{\hspace{2cm}}$ | b. $10 + 2 \times 9 + 8 = \underline{\hspace{2cm}}$ |
| c. $25 + 8 \times 5 \div 2 = \underline{\hspace{2cm}}$ | d. $10 + 2 \times (9 + 8) = \underline{\hspace{2cm}}$ |
| e. $120 - 2 \times (11 - 5) = \underline{\hspace{2cm}}$ | f. $2 \times (100 - 80 + 20) = \underline{\hspace{2cm}}$ |

4. Division can also be written with a fraction line. Solve in the right order.

a. $6 + \frac{24}{2} = \underline{\hspace{2cm}}$	b. $40 + \frac{32}{2} - 6 = \underline{\hspace{2cm}}$	c. $\frac{54}{6} - 3 \times 2 = \underline{\hspace{2cm}}$
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