

# Order of Operations



## Quick Review

To make sure everyone gets the same answer when solving an expression, we use this order of operations:



- Do the operations in brackets.
- Multiply and divide, in order, from left to right.
- Then add and subtract, in order, from left to right.

► Solve:  $12 + 20 \div 5$

$$12 + 20 \div 5$$

$$\downarrow$$

$$= 12 + 4$$

$$= 16$$

► Solve:  $9 \times (6 - 4)$

$$9 \times (6 - 4)$$

$$\downarrow$$

$$= 9 \times 2$$

$$= 18$$

► Solve:  $25 - 4 + 6$

$$25 - 4 + 6$$

$$\downarrow$$

$$= 21 + 6$$

$$= 27$$

## Try These

1. Solve each expression.

Use the order of operations.

a)  $15 + 7 \times 2 = \underline{\quad}$       b)  $34 - 6 \div 3 = \underline{\quad}$       c)  $35 + 15 \times 2 = \underline{\quad}$

d)  $30 \div (2 + 3) = \underline{\quad}$       e)  $44 \div 11 + 4 = \underline{\quad}$       f)  $(14 \div 7) \times 4 = \underline{\quad}$

g)  $24 + (16 \div 8) = \underline{\quad}$       h)  $(17 + 2) - 14 = \underline{\quad}$       i)  $3 \times 9 - 4 = \underline{\quad}$

2. Use mental math to solve.

a)  $2 \times 9 - 3 + 4 = \underline{\quad}$       b)  $5 + 150 \div 25 = \underline{\quad}$

c)  $30 + 30 \div 6 = \underline{\quad}$       d)  $(8 \times 9) - (8 \times 8) = \underline{\quad}$

e)  $24 \div 12 \times 9 = \underline{\quad}$       f)  $(200 + 400) \times 2 = \underline{\quad}$

g)  $18 \div 2 \times 2 = \underline{\quad}$       h)  $4 \times (3 \times 5) = \underline{\quad}$

i)  $12 + 6 - 2 = \underline{\quad}$       j)  $(50 + 100) \times 2 - 100 = \underline{\quad}$

## Practice

1. Solve each expression.

**a)**  $48 \div 12 \div 2 = \underline{\quad}$     **b)**  $8 \times (10 - 4) = \underline{\quad}$     **c)**  $28 - 12 \div 4 = \underline{\quad}$

**d)**  $7 \times (3 + 2) = \underline{\quad}$     **e)**  $16 \div 2 \times 9 = \underline{\quad}$     **f)**  $15 \div (3 \times 5) = \underline{\quad}$

2. Use brackets to make each number sentence true.

**a)**  $2 \times 3 + 6 = 18$

**b)**  $20 \times 15 - 2 = 260$

**c)**  $5 + 4 \div 3 = 3$

**d)**  $12 + 10 \div 11 = 2$

**e)**  $6 + 8 \div 2 = 10$

**f)**  $5 \times 4 \div 2 = 10$

3. Write a number sentence to show the order of operations you use to solve each problem.

**a)** Sandar bought 4 bags of chips at \$2.99 each.

She used a \$2.00 coupon to pay part of the cost.

How much did Sandar pay for the chips?

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**b)** The decorating committee needs 3 balloons for each of 15 tables.

They also need 20 balloons for each of the 4 walls of the room.

How many balloons does the committee need?

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## Stretch Your Thinking

You and 3 friends order a pizza, 4 large drinks, and a loaf of cheese bread.

You split the cost evenly with your friends.

What order of operations would you use to find out how much each person should pay?

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