Order of Operations

The order of operations tells you how to do calculations when there is more than one kind of operation.

Order of Operations	Example
	20 – 12 ÷ (3 + 1)
1. Anything inside parentheses	20 − 12 ÷ (3 + 1) = 20 − 12 ÷ 4
2. Multiplication and division from left to right	20 − 12 ÷ 4 = 20 − 3
3. Addition and subtraction from left to right	20 – 3 = 17

1 Use the order of operations above to complete each equation.

a $(9 + 3) \times (16 \div 8) \div 4$	b (365 + 35) ÷ 5 + 3
C $36 \div 6 + 4 \times (27 \div 9)$	d $(26 - 18) \times 5 \div 10 + 10$

2 Insert parentheses to make each equation true.

a $2 \times 18 - 5 + 15 \div 5 = 32$	b $34 - 20 \div 4 + 3 = 2$
C $14 = 50 - 42 \div 3 + 4 \times 6$	d $21 = 7 + 16 - 8 \div 2 + 2 \times 25 \div 5$
CHALLENGE	

3 Using at least two operations, write an expression that is the same whether you do the calculations from left to right or using the correct order of operations.

Order of Operations Review

The order of operations tells you how to do calculations when there is more than one kind of operation.

Order of Operations	Example	
	20 – 12 ÷ (3 + 1)	
1. Anything inside parentheses	20 − 12 ÷ (3 + 1) = 20 − 12 ÷ 4	
2. Multiplication and division from left to right	20 − 12 ÷ 4 = 20 −3	
3. Addition and subtraction from left to right	20 – 3 = 17	

1 Use the order of operations above to complete each equation. Show all your work.

a = $463 - 180 \div (3 \times (2 + 3))$	b $(249 - 192) \div 3 \times 14 = $
C = $36 + 14 \times (182 - 164) \div 12$	d $(9 \div 3 + 213) - 72 \div 4 = $
C = $36 + 14 \times (182 - 164) \div 12$	d $(9 \div 3 + 213) - 72 \div 4 = $

2 Insert parentheses to make each equation true. Show all your work.

$3 \times 9 + 18 + 36 \div 9 = 33$ b $2 = 140 \div 2 + 12 - 4 \times 2$	$3 \times 9 + 18 + 36 \div 9 = 33$ b $2 = 140 \div 2 + 12 - 4 \times 2$
9 + 18 + 36 ÷ 9 = 33 b 2 = 140 ÷ 2 + 12 - 4 × 2	9 + 18 + 36 ÷ 9 = 33 b 2 = 140 ÷ 2 + 12 - 4 × 2
18 + 36 ÷ 9 = 33 b 2 = 140 ÷ 2 + 12 - 4 × 2	18 + 36 ÷ 9 = 33 b 2 = 140 ÷ 2 + 12 - 4 × 2
b $2 = 140 \div 2 + 12 - 4 \times 2$	b $2 = 140 \div 2 + 12 - 4 \times 2$
$\div 9 = 33$ b $2 = 140 \div 2 + 12 - 4 \times 2$	$\div 9 = 33$ b $2 = 140 \div 2 + 12 - 4 \times 2$
b $2 = 140 \div 2 + 12 - 4 \times 2$	$b = 33$ $b = 140 \div 2 + 12 - 4 \times 2$
b $2 = 140 \div 2 + 12 - 4 \times 2$	b $2 = 140 \div 2 + 12 - 4 \times 2$
b $2 = 140 \div 2 + 12 - 4 \times 2$	b $2 = 140 \div 2 + 12 - 4 \times 2$
b $2 = 140 \div 2 + 12 - 4 \times 2$	b $2 = 140 \div 2 + 12 - 4 \times 2$
b $2 = 140 \div 2 + 12 - 4 \times 2$	b $2 = 140 \div 2 + 12 - 4 \times 2$
$2 = 140 \div 2 + 12 - 4 \times 2$	$2 = 140 \div 2 + 12 - 4 \times 2$
= 140 ÷ 2 + 12 - 4 × 2	= 140 ÷ 2 + 12 – 4 × 2
0 ÷ 2 + 12 - 4 × 2	0 ÷ 2 + 12 – 4 × 2
2 + 12 - 4 × 2	2 + 12 - 4 × 2
- 12 – 4 × 2	- 12 - 4 × 2
- 4 × 2	-4 × 2
4 × 2	4 × 2
2	2