MATH

Order of operations without parentheses

Name _____ Date _____

I can multiply and divide before I add and subtract.

1 How it works

When an expression has more than one operation, do them in order. First multiply and divide, from left to right. Then add and subtract, from left to right. In 3 + 4 × 5 − 6, do 4 × 5 = 20 first. Then 3 + 20 = 23, and 23 − 6 = 17.

$$3 + 4 \times 5 - 6$$
$$= 3 + 20 - 6$$
$$= 23 - 6$$
$$= 17$$

2 Solve

× and ÷ first, then + and −, left to right.

1. $6 \times 11 - 2 \times 11 =$ ☐
2. $10 \div 2 + 3 \times 11 =$ ☐
3. $8 + 12 - 2 \times 6 =$ ☐
4. $2 + 7 \times 3 - 7 =$ ☐
5. $8 - 2 \div 2 =$ ☐
6. $10 - 2 \div 2 =$ ☐
7. $11 \times 5 - 2 \times 3 =$ ☐
8. $7 + 12 \times 11 =$ ☐
9. $2 + 5 \times 7 =$ ☐
10. $11 \times 9 - 9 \times 2 =$ ☐

How did I do? ☆ ☆ ☆

Scan for more free practice

Show each step

Name _____ Date _____

I can show the steps in order.

1 Write one step on each line

One operation at a time.

1. $12 + 8 \times 7 - 5$

= _____

= _____

= _____

2. $12 - 6 \div 6$

= _____

= _____

3. $3 + 6 \div 6$

= _____

= _____

4. $10 + 12 \div 6$

= _____

= _____

2 Solve

1. $2 + 7 \times 9 =$ ☐
2. $6 + 12 \times 6 =$ ☐
3. $8 + 2 \times 9 - 3 =$ ☐
4. $6 + 4 \times 11 =$ ☐
5. $7 + 3 \times 8 =$ ☐
6. $6 + 12 - 2 \times 2 =$ ☐

How did I do? ☆ ☆ ☆

Scan for more free practice

True or false?

Name _____ Date _____

I can check work and find mistakes.

1 Is it true? Circle true or false.

1. 5 × 12 – 3 × 2 = 54 — true / false
2. 11 + 5 × 11 – 8 = 168 — true / false
3. 4 + 9 × 11 – 11 = 92 — true / false
4. 12 × 4 + 4 × 8 = 416 — true / false
5. 2 × 8 + 12 × 8 = 224 — true / false
6. 2 + 3 × 2 – 2 = 6 — true / false

2 Find the mistake

They worked from left to right. Fix it.

Adam says 10 ÷ 5 + 6 × 6 = 48.

The right answer is ☐ What went wrong? _____

Aisha says 9 + 12 × 3 = 63.

The right answer is ☐ What went wrong? _____

3 Think about it

1. Which do you do first in 8 + 2 × 5? ☐
2. Does 12 – 4 + 3 equal 5 or 11? ☐
3. Write 6 + 4 × 2 with parentheses so it equals 20. ☐

How did I do? ☆ ☆ ☆

Scan for more free practice

Word problems

Name _____ Date _____

I can write one expression for a problem and solve it.

1 Read, write an expression, solve

Show your expression in the box.

1 Adam has 4 bags with 6 cookies in each bag and 5 loose cookies. Write an expression and find how many cookies in all.

Answer:

2 Noor buys 3 apples at 40 cents each and pays with $2 (200 cents). How much change? Write an expression first.

Answer:

3 A class has 2 boxes of 12 pencils and 6 more pencils. The pencils are shared by 5 tables. How many does each table get?

Answer:

4 Adam says 10 − 4 + 2 = 4, because you add first. Is Adam right?

Answer:

How did I do? ☆ ☆ ☆

Scan for more free practice

FOR TEACHERS AND PARENTS

Answer key: order of operations without parentheses

1 Page 1

Solve: 1) 44; 2) 38; 3) 8; 4) 16; 5) 7; 6) 9; 7) 49; 8) 139; 9) 37; 10) 81.

2 Page 2

1) 12 + 8 × 7 − 5 = 12 + 56 − 5 = 68 − 5 = 63
2) 12 − 6 ÷ 6 = 12 − 1 = 11
3) 3 + 6 ÷ 6 = 3 + 1 = 4
4) 10 + 12 ÷ 6 = 10 + 2 = 12
Solve: 1) 65; 2) 78; 3) 23; 4) 50; 5) 31; 6) 14.

3 Page 3

True or false: 1) true; 2) false; 3) true; 4) false; 5) false; 6) true.
Mistake 1) 10 ÷ 5 + 6 × 6 = 38 (10 ÷ 5 + 6 × 6 = 2 + 6 × 6 = 2 + 36 = 38)
Mistake 2) 9 + 12 × 3 = 45 (9 + 12 × 3 = 9 + 36 = 45)
Think: 1) 2 × 5; 2) 11 (left to right); 3) (6 + 4) × 2.

4 Page 4: word problems

1) 4 × 6 + 5 = 29 cookies
2) 200 − 3 × 40 = 80 cents
3) (2 × 12 + 6) ÷ 5 = 6 pencils
4) No. Add and subtract from left to right: 10 − 4 + 2 = 8.

5 Teaching tip

Children who always go left to right get 3 + 4 × 5 wrong. Have them circle the × and ÷ signs first, solve those, and rewrite the expression before they add or subtract.

Scan for more free practice