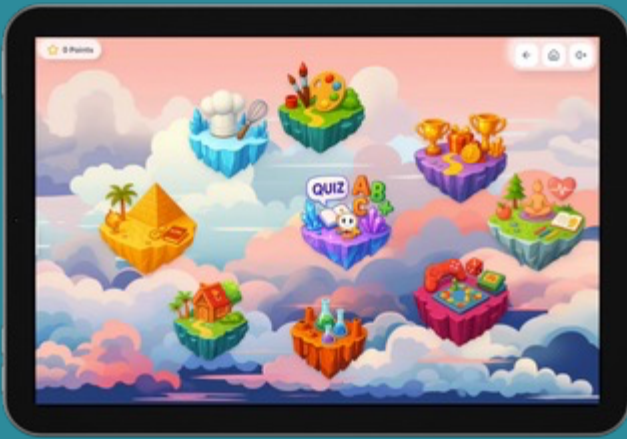


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Order of Operations - Year 6

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Order of Operations Flow Chart

1

Brackets

Work inside brackets first. If brackets are nested, start with the inside pair.



2

Multiply or Divide

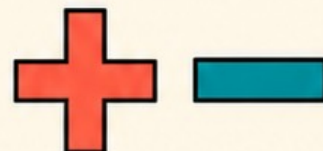
Work from left to right.



3

Add or Subtract

Work from left to right.



Example

$$48 \div (6 + 2) \times 3 - 4$$

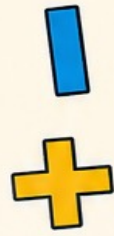
$$48 \div 8 \times 3 - 4$$

$$6 \times 3 - 4$$

$$18 - 4 = 14$$



Use this order so everyone reads the same equation the same way.



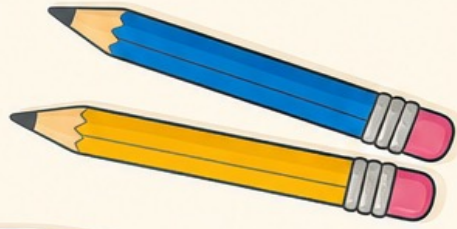
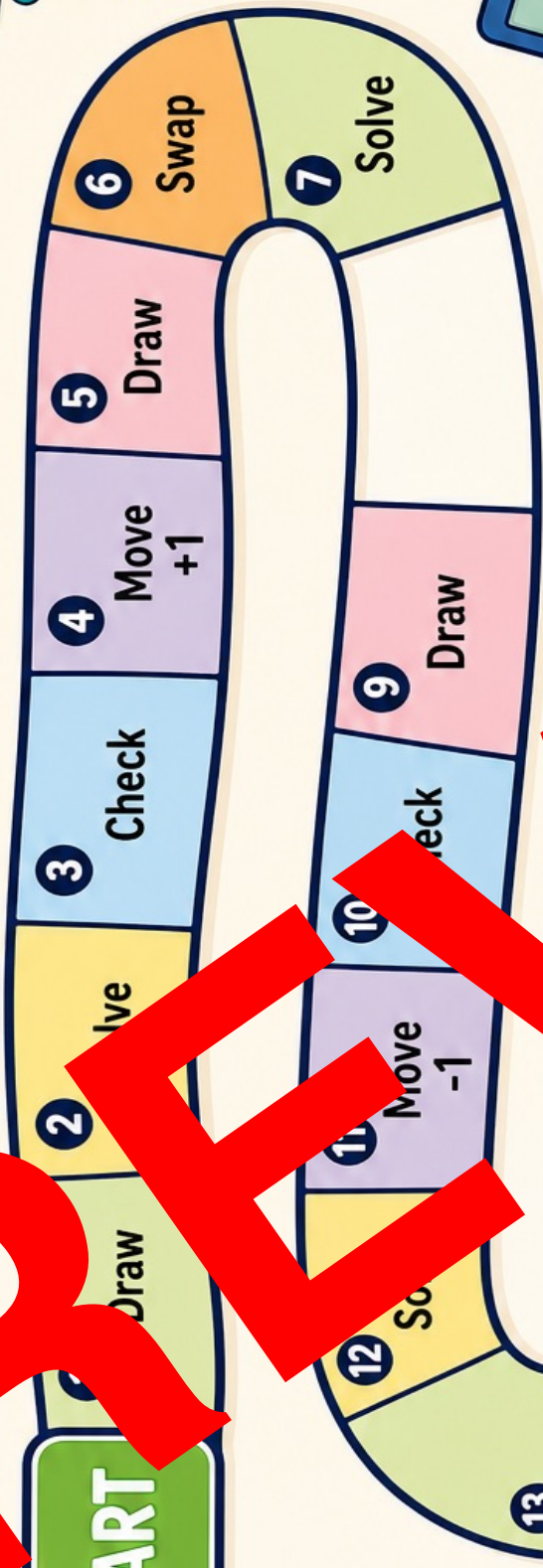
Operation Trail Game Board



START

How to Play

1. Roll a die and move.
2. Draw a card when you land on a card space.
3. Solve the expression before your next turn.
4. First player to FINISH wins.



Operation Trail Cards



1

$$18 - (4 \times 3)$$

Answer: _____

2

$$6 + 3 \times 7$$

Answer: _____

3

$$48 \div 6 \times 2$$

Answer: _____

4

$$72 \div (4 \times 3)$$

Answer: _____

5

$$5 \times 6 + 1 \times 2$$

Answer: _____

6

$$50 - 18 \div 3$$

Answer: _____

7

$$5 \times 3 + 1 \times 2$$

Answer: _____

8

$$(9 - 3) \times (2 + 4)$$

Answer: _____

9

$$64 \div (2 \times 4) + 6$$

Answer: _____

10

$$100 - (8 \times 7) \div 2$$

Answer: _____

11

$$7 \times (10 - 3)$$

Answer: _____

12

$$144 \div (3 \times 4)$$

Answer: _____

Target Builder Challenge

Add operation signs and brackets to make each target.
Show your thinking in the working space.

Challenge	Numbers and Operations	Target	Working Space
1	12 4 2	Target: 10	
2	18 3 5	Target:	
3	24 6 2	Target: 6	
4	32 2 4	Target: 0	
5	45 5 7	Target: 16	
6	8 6 3	Target: 30	
7	9 4 2	Target: 26	
8	100 8 7	Target: 44	



Try more than one solution when you can.





Name: _____

Order of Operations Warm-Up



Use the correct order of operations. Show one line of working for each problem.

1. $18 - (4 \times 3) = \underline{\hspace{2cm}}$

9. $9 + (5 \times 6) = \underline{\hspace{2cm}}$

2. $(7 + 5) \times 2 = \underline{\hspace{2cm}}$

10. $72 \div (3) = \underline{\hspace{2cm}}$

3. $36 \div 6 + 8 = \underline{\hspace{2cm}}$

14. $\hspace{1cm} \times 5 = \underline{\hspace{2cm}}$

4. $5 \times 4 - 9 = \underline{\hspace{2cm}}$

12. $(8 + 4) \times 2 = \underline{\hspace{2cm}}$

5. $24 \div (3 \times 2) = \underline{\hspace{2cm}}$

13. $3 \times 6 + 4 \times 2 = \underline{\hspace{2cm}}$

6. $6 + \hspace{1cm} \times 7 = \underline{\hspace{2cm}}$

14. $50 - 18 \div 3 = \underline{\hspace{2cm}}$

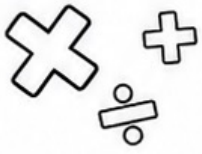
7. $(30 - 12) \div 3 = \underline{\hspace{2cm}}$

15. $(9 - 3) \times (2 + 4) = \underline{\hspace{2cm}}$

8. $48 \div 8 \times 2 = \underline{\hspace{2cm}}$

16. $45 \div 5 + 7 \times 2 = \underline{\hspace{2cm}}$





ANSWERS

Order of Operations Warm-Up

Use the correct order of operations. Show one line of working for each problem.

1. $18 - (4 \times 3) = \underline{6}$

9. $9 + (5 \times 6) = \underline{39}$

2. $(7 + 5) \times 2 = \underline{24}$

10. $7 \div (4 - 3) = \underline{7}$

3. $36 \div 6 + 8 = \underline{14}$

11. $14 - 5 = \underline{9}$

4. $5 \times 4 - 9 = \underline{11}$

12. $(9 + 4) \div 2 = \underline{6.5}$

5. $12 \div 3 + 3 = \underline{7}$

13. $3 \times 6 + 4 \times 2 = \underline{26}$

6. $15 \div 3 \times 6 = \underline{30}$

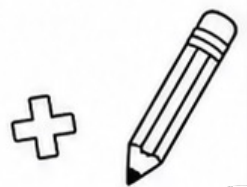
14. $50 - 18 \div 3 = \underline{44}$

7. $(30 - 12) \div 3 = \underline{6}$

15. $(9 - 3) \times (2 + 4) = \underline{36}$

8. $48 \div 8 \times 2 = \underline{12}$

16. $45 \div 5 + 7 \times 2 = \underline{23}$



Name: _____

Brackets Change the Value

Choose the expression that matches the target value. Write A, B or C.

1. Target: 21

A. $(5 + 2) \times 3$

B. $5 + 2 \times 3$

C. $5 \times (2 + 3)$

Answer: _____

2. Target: 3

A. $(15 \div 3) + 2$

B. $15 \div (3 + 2)$

C. $(15 \div 3) \div 2$

Answer: _____

3. Target: 30

A. $32 - 2 + 4$

B. $32 - (2 + 4)$

C. $32 + 2 \times 4$

Answer: _____

4. Target: 14

A. $8 + 2 \times 3$

B. $(8 + 2) \times 3$

C. $8 \times (2 + 3)$

Answer: _____

5. Target: 7

A. $(20 \div 5) + 3$

B. $20 \div (5 + 3)$

C. $20 \div 5 \times 3$

Answer: _____

6. Target: 36

A. $(9 - 3) \times 6$

B. $9 - 3 \times 6$

C. $9 \times (3 + 6)$

Answer: _____

7. Target: 44

A. $100 - (8 \times 7)$

B. $(100 - 8) \times 7$

C. $100 - 8 \times (7 + 1)$

Answer: _____

8. Target: 6

A. $48 \div (6 + 2)$

B. $48 \div 6 + 2$

C. $(48 \div 6) + 8$

Answer: _____

Name: ANSWERS

Brackets Change the Value

Choose the expression that matches the target value. Write A, B or C.

1. Target: 21

A. $(5 + 2) \times 3$

B. $5 + 2 \times 3$

C. $5 \times (2 + 3)$

Answer: A

2. Target: 3

A. $(15 \div 3) + 2$

B. $15 \div (3 + 2)$

C. $(15 \div 3) \div 2$

Answer: C

3. Target: 30

A. $32 - 2 + 4$

B. $32 - (2 + 4)$

C. $32 + (2 + 4)$

Answer: B

4. Target: 14

A. $8 + 2 \times 3$

B. $(8 + 2) \times 3$

C. $8 \times (2 + 3)$

Answer: A

5. Target: 7

A. $(20 \div 5) + 3$

B. $20 \div (5 + 3)$

C. $20 \div 5 \times 3$

Answer: B

6. Target: 36

A. $(9 - 3) \times 6$

B. $9 - 3 \times 6$

C. $9 \times (3 + 6)$

Answer: A

7. Target: 44

A. $100 - (8 \times 7)$

B. $(100 - 8) \times 7$

C. $100 - 8 \times (7 + 1)$

Answer: A

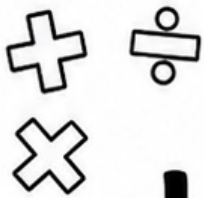
8. Target: 6

A. $48 \div (6 + 2)$

B. $48 \div 6 + 2$

C. $(48 \div 6) + 8$

Answer: A



Name: _____



Left-to-Right Decisions

When operations have the same priority, work from left to right.
Write the first step, then solve.

1. $24 \div 6 \times 2$

First step: _____

Answer: _____

2. $18 - 5 + 7$

First step: _____

Answer: _____

3. $30 \div 5 \times 2$

First step: _____

Answer: _____

4. $9 \times 6 \div 2$

First step: _____

Answer: _____

5. $12 - 1 \div 2$

First step: _____

Answer: _____

6. $8 \times 3 \div 4$

First step: _____

Answer: _____

7. $50 - 20 + 5$

First step: _____

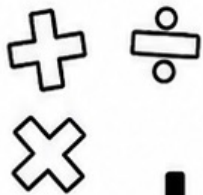
Answer: _____

8. $7 + 18 \div 6 \times 4$

First step: _____

Answer: _____



Name: ANSWERS

Left-to-Right Decisions

When operations have the same priority, work from left to right.
Write the first step, then solve.

1. $24 \div 6 \times 2$

First step: $24 \div 6$

Answer: 8

2. $18 - 4 + 7$

First step: $18 - 4$

Answer: 22

3. $30 \div 5 \times 3$

First step: $30 \div 5$

Answer: 18

4. $9 \times 6 \div 2$

First step: 9×6

Answer: 27

5. $36 \div 3 + 2$

First step: $36 \div 3$

Answer: 14

6. $8 \times 3 \div 4$

First step: 8×3

Answer: 6

7. $50 - 20 + 5$

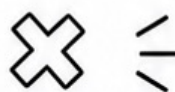
First step: $50 - 20$

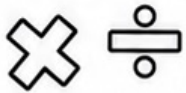
Answer: 35

8. $7 + 18 \div 6 \times 4$

First step: $18 \div 6$

Answer: 19





Name: _____



Missing Operations

Fill each box with +, -, × or ÷ to make the equation true

Key: + - × ÷

1. $6 \square 4 = 10$

2. $\square =$

3. $7 \square = 35$

4. $20 \square 8 = 12$

5. $5 \square 1 \square 7$

6. $4 \square 2 \square 3 = 10$

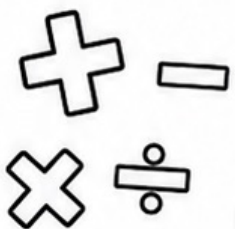
7. $24 \square 8 \square 2 = 6$

8. $30 \square 6 \square 2 = 3$

9. $9 \square 3 \square 4 = 21$

10. $16 \square 4 \square 2 = 8$





Name: ANSWERS



Missing Operations

Fill each box with +, -, × or ÷ to make the equation true

Key: + - × ÷

1. $6 \boxed{+} 4 = 10$

2. $9 \boxed{\div} 3 = 3$

3. $7 \boxed{\times} 5 = 35$

4. $20 \boxed{-} 8 = 12$

5. $5 \boxed{+} 1 \boxed{+} 1 = 7$

6. $4 \boxed{+} 2 \boxed{\times} 3 = 10$

7. $24 \boxed{\div} 8 \boxed{\times} 2 = 6$

8. $30 \boxed{\div} 6 \boxed{-} 2 = 3$

9. $9 \boxed{+} 3 \boxed{\times} 4 = 21$

10. $16 \boxed{-} 4 \boxed{\times} 2 = 8$





Name: _____



Word Problems as Equations

Write one number sentence for each problem. Use brackets when they help. Then solve.

1. The library packs 6 boxes with 18 books in each box. Then 24 books are given to another class. How many books are left?

Equation: _____

Answer: _____



2. Ella has \$75. She buys 3 notebooks for \$8 each and 2 pens for \$5 each. How much money does she have left?

Equation: _____

Answer: _____



3. A camp has 120 students and 6 teachers. One is sorted equally into 6 teams. How many people are in each team?

Equation: _____

Answer: _____



4. A bakery makes 8 trays of 12 muffins. It sells 36 muffins and packs the rest equally into 5 boxes. How many muffins go in each box?

Equation: _____

Answer: _____



5. The science club has 4 packs of 25 labels. It uses 18 labels for each of 3 experiments. How many labels are left?

Equation: _____

Answer: _____



Name: ANSWERS

Word Problems as Equations

Write one number sentence for each problem. Use brackets when they help. Then solve.

1. The library packs 6 boxes with 18 books in each box. Then 24 books are given to another class. How many books are left?

Equation: $6 \times 18 - 24 = 84$

Answer: 84 books



2. Ella has \$75. She buys 3 notebooks for \$8 each and 2 pens for \$5 each. How much money does she have left?

Equation: $75 - (3 \times 8) - (2 \times 5) = 41$

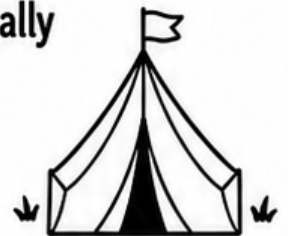
Answer: \$41



3. A camp has 5 students and 6 teachers. Everyone is sorted equally into 6 teams. How many people are in each team?

Equation: $(5 + 6) \div 6 = 9$

Answer: 9 people



4. A bakery makes 8 trays of 12 muffins. It sells 36 muffins and packs the rest equally into 5 boxes. How many muffins go in each box?

Equation: $(8 \times 12 - 36) \div 5 = 12$

Answer: 12 muffins

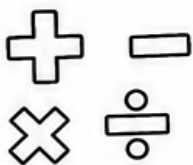


5. The science club has 4 packs of 25 labels. It uses 18 labels for each of 3 experiments. How many labels are left?

Equation: $4 \times 25 - 18 \times 3 = 46$

Answer: 46 labels





Name: _____



Order of Operations Checkpoint

Show working where needed. Use the correct order of operations.

A. Solve each expression

1. $36 \div (3 + 3) + 5 = \underline{\hspace{2cm}}$

2. $7 + 4 \times 6 = \underline{\hspace{2cm}}$

3. $(18 - 6) \div 3 \times 2 = \underline{\hspace{2cm}}$

4. $60 - 8 \times 5 = \underline{\hspace{2cm}}$

B. Fill the missing operation symbols

5. $9 \square \square 2 = 17$

$10 \square 8 \square 3 = 2$

C. Choose the operation that matches the target

Target: 28

A. $4 \times (5 + 2)$

B. $4 \times 5 + 2$

C. $(4 + 5) \times 2$

Target: 48

A. $48 \div (6 + 2)$

B. $48 \div 6 + 2$

C. $(48 \div 6) + 2$

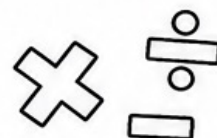
Answer: _____

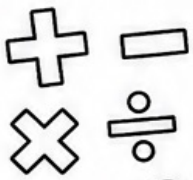
D. Create and solve one equation

9. A sports club buys 5 bags with 12 balls in each bag. It gives 18 balls to the coaches. The rest are shared equally among 6 teams. How many balls does each team get?

Equation: _____

Answer: _____





Name: ANSWERS

Order of Operations Checkpoint

Show working where needed. Use the correct order of operations.

A. Solve each expression

1. $36 \div (3 + 3) + 5 = \underline{11}$

2. $7 + 4 \times 6 = \underline{31}$

3. $(18 - 6) \div 3 \times 2 = \underline{8}$

4. $60 - 8 \times 5 = \underline{20}$

B. Fill the missing operation signs

5. $9 \boxed{+} 4 \boxed{-} 2 = 17$ $6 \boxed{\div} 40 \boxed{-} 8 \boxed{-} 3 = 2$

C. Choose the expression that matches the target

Target: 28

A. $4 \times (5 + 2)$

B. $4 \times 5 + 2$

C. $(4 + 5) \times 2$

Answer: A

Target: 10

A. $48 \div (6 + 2)$

B. $48 \div 6 + 2$

C. $(48 \div 6) + 2$

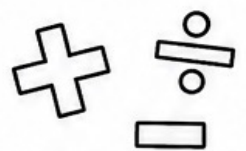
Answer: A

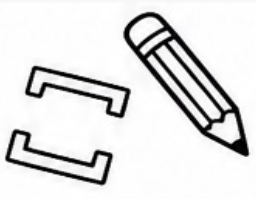
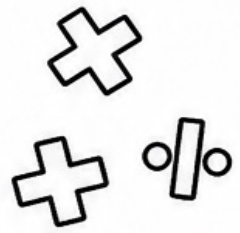
D. Create and solve one equation

9. A sports club buys 5 bags with 12 balls in each bag. It gives 18 balls to the coaches. The rest are shared equally among 6 teams. How many balls does each team get?

Equation: $(5 \times 12 - 18) \div 6 = 7$

Answer: 7 balls





Order of Operations Rubric

Criteria	BEGINNING	DEVELOPING	ACHIEVING	CONFIDENT	EXCEEDING
1. Follows order of operations	Needs support to choose the first operation.	Follows some steps correctly with minor errors.	Follows the correct order for familiar expressions.	Works accurately through multi-step expressions.	Explains the order clearly and checks results.
2. Uses brackets and grouping	Does not yet use brackets accurately.	Recognises brackets but may miss their effect.	Solves bracketed problems correctly.	Chooses brackets to make equations true.	Creates efficient equations using grouping.
3. Creates and interprets equations	Needs help matching situations to equations.	Writes simple equations with some errors.	Writes equations for word problems.	Uses brackets and operations to model situations.	Compares methods and justifies equation choices.
4. Shows working and reasoning	Working is missing or hard to follow.	Shows some steps but skips key reasoning.	Shows clear steps and answers.	Records organised working clearly.	Communicates reasoning precisely using maths language.

Order of Operations

Order of Operations Quiz

