

DIVISION

A Complete Mathematics Worksheet Pack

Learn • Practise • Apply • Reason

CONCEPTS	SKILLS	APPLICATION
Equal sharing	Division facts	Word problems
Grouping	Quotients	Remainders
Repeated subtraction	Missing numbers	Reasoning

Flexible, non-grade-specific mathematics resource

Name: _____ Date: _____

1. Understanding Division

Division means sharing equally or making equal groups.

1. 12 stars are shared equally between 3 children. How many stars does each child get?

2. 20 pencils are put into 5 equal groups. How many pencils are in each group? _____

3. 18 apples are shared equally among 6 baskets. How many apples are in each basket?

4. 15 counters are arranged into 3 equal groups. How many counters are in each group?

5. 24 stickers are shared equally among 4 children. How many stickers does each child get? _____

6. 16 books are placed equally on 4 shelves. How many books are on each shelf? _____

Think: What must be true for division to be fair?

2. Equal Groups

Complete the table. The groups must always be equal.

Total objects	Groups	Objects in each group
10	2	_____
12	3	_____
20	4	_____
25	5	_____
30	3	_____
24	6	_____
40	5	_____
36	4	_____

Challenge: Show two different ways to make equal groups from 30 objects.

3. Repeated Subtraction & Division

Division can be shown by subtracting the same number again and again.

20 subtract 5 repeatedly: Number of subtractions _____ $20 \div 5 =$ _____

18 subtract 3 repeatedly: Number of subtractions _____ $18 \div 3 =$ _____

24 subtract 4 repeatedly: Number of subtractions _____ $24 \div 4 =$ _____

30 subtract 10 repeatedly: Number of subtractions _____ $30 \div 10 =$ _____

16 subtract 2 repeatedly: Number of subtractions _____ $16 \div 2 =$ _____

Complete: $12 - 3 - 3 - 3 - 3 = 0$, so $12 \div 3 =$ _____.

Explain: How is repeated subtraction connected to division?

4. Division Sentences

Write the correct division sentence.

1. 15 balloons are shared equally into 3 groups. _____
2. 28 crayons are put into 4 equal boxes. _____
3. 35 children form groups of 5. _____
4. 40 cards are shared equally among 8 players. _____
5. 36 oranges are packed equally into 6 bags. _____
6. 45 books are placed in groups of 9. _____
7. 50 counters are put into groups of 10. _____
8. 32 pencils are shared equally among 4 students. _____

Remember: $\text{dividend} \div \text{divisor} = \text{quotient}$.

5. Multiplication & Division Fact Families

Use multiplication facts to help solve division.

3, 4, 12: $3 \times 4 = 12$; $4 \times 3 = 12 \rightarrow 12 \div 3 = \underline{\quad}$; $12 \div 4 = \underline{\quad}$

5, 6, 30: $5 \times 6 = 30$; $6 \times 5 = 30 \rightarrow 30 \div 5 = \underline{\quad}$; $30 \div 6 = \underline{\quad}$

7, 4, 28: $7 \times 4 = 28$; $4 \times 7 = 28 \rightarrow 28 \div 7 = \underline{\quad}$; $28 \div 4 = \underline{\quad}$

8, 5, 40: $8 \times 5 = 40$; $5 \times 8 = 40 \rightarrow 40 \div 8 = \underline{\quad}$; $40 \div 5 = \underline{\quad}$

Complete: If $6 \times 7 = 42$, then $42 \div 6 = \underline{\quad}$ and $42 \div 7 = \underline{\quad}$.

6. Division Facts Practice

Solve the division facts.

$12 \div 2 = \underline{\quad}$ $18 \div 3 = \underline{\quad}$ $20 \div 5 = \underline{\quad}$

$24 \div 4 = \underline{\quad}$ $30 \div 5 = \underline{\quad}$ $36 \div 6 = \underline{\quad}$

$40 \div 8 = \underline{\quad}$ $45 \div 5 = \underline{\quad}$ $48 \div 6 = \underline{\quad}$

$54 \div 9 = \underline{\quad}$ $63 \div 7 = \underline{\quad}$ $72 \div 8 = \underline{\quad}$

$80 \div 10 = \underline{\quad}$ $81 \div 9 = \underline{\quad}$ $100 \div 10 = \underline{\quad}$

Confidence check: I can solve division facts quickly / I need more practice.

7. Missing Numbers

Find the missing number.

1. $24 \div \underline{\quad} = 6$ 2. $\underline{\quad} \div 5 = 7$

3. $36 \div \underline{\quad} = 4$ 4. $\underline{\quad} \div 8 = 6$

5. $45 \div \underline{\quad} = 9$ 6. $\underline{\quad} \div 4 = 8$

7. $63 \div \underline{\quad} = 7$ 8. $\underline{\quad} \div 10 = 9$

9. $56 \div \underline{\quad} = 8$ 10. $\underline{\quad} \div 6 = 7$

11. $72 \div \underline{\quad} = 9$ 12. $\underline{\quad} \div 3 = 12$

Reasoning: Write a multiplication equation that proves your answer to Question 10.

8. Division with Remainders

Sometimes a number cannot be shared equally. The amount left over is the remainder.

$$13 \div 4 = \underline{\quad\quad} \text{ remainder } \underline{\quad\quad}$$

$$17 \div 5 = \underline{\quad\quad} \text{ remainder } \underline{\quad\quad}$$

$$22 \div 6 = \underline{\quad\quad} \text{ remainder } \underline{\quad\quad}$$

$$29 \div 4 = \underline{\quad\quad} \text{ remainder } \underline{\quad\quad}$$

$$35 \div 6 = \underline{\quad\quad} \text{ remainder } \underline{\quad\quad}$$

$$43 \div 5 = \underline{\quad\quad} \text{ remainder } \underline{\quad\quad}$$

Circle the remainder: $19 \div 4 = 4 \text{ remainder } 3$ | $27 \div 5 = 5 \text{ remainder } 2$

Think: Can a remainder ever be bigger than the divisor? Explain.

9. Division in Real Life

1. A teacher has 48 pencils and puts 6 pencils in each box. How many boxes? _____
2. 35 cookies are shared equally among 5 children. How many each? _____
3. A library has 56 books to place equally on 7 shelves. How many per shelf? _____
4. 42 students form equal teams of 6. How many teams? _____
5. 25 apples are packed into bags of 4. How many full bags and how many left?

6. A baker has 63 cupcakes and packs 9 in each tray. How many trays? _____
7. 72 stickers are shared equally among 8 children. How many each? _____

10. Division Detective — Reasoning

1. Sam says: " $24 \div 6 = 5$." Is Sam correct? If not, correct it. _____
2. Mia says: " $35 \div 5 = 6$ remainder 5." Find her mistake. _____
3. A number divided by 4 gives 7. What is the number? _____
4. I am between 30 and 40. Divided by 5, I have no remainder. What numbers could I be?

5. Which is greater: $48 \div 6$ or $36 \div 4$? Show your thinking. _____
6. 30 counters can make equal groups of 2, 3, 5 or 6. List all possible group sizes.

7. Create a division fact whose answer is 8. _____

11. Mixed Division Challenge

1. $96 \div 8 =$ _____ 2. $84 \div 7 =$ _____ 3. $75 \div 5 =$ _____
4. $91 \div 7 =$ _____ 5. $68 \div 4 =$ _____ 6. $100 \div 8 =$ _____ remainder _____
7. Write two different division equations with answer 6: _____ and _____
8. A number $\div 9 = 8$. What is the number? _____
9. Which has the larger quotient: $64 \div 8$ or $72 \div 9$? _____
10. 50 sweets are packed into groups of 6. How many full groups? How many remain?

11. Write a word problem for $42 \div 7 = 6$. _____
12. Super Challenge: I am less than 50 and divisible by 2, 3 and 6. Give one possible answer and explain. _____

Teacher Answer Key

Page 2: 4, 4, 3, 5, 6, 4.

Page 3: 5, 4, 5, 5, 10, 4, 8, 9. Challenge examples: $30 \div 3 = 10$ and $30 \div 5 = 6$.

Page 4: 4, 6, 6, 3, 8. Final answer: 4.

Page 5: $15 \div 3 = 5$; $28 \div 4 = 7$; $35 \div 5 = 7$; $40 \div 8 = 5$; $36 \div 6 = 6$; $45 \div 9 = 5$; $50 \div 10 = 5$; $32 \div 4 = 8$.

Page 6: $12 \div 3 = 4$, $12 \div 4 = 3$; $30 \div 5 = 6$, $30 \div 6 = 5$; $28 \div 7 = 4$, $28 \div 4 = 7$; $40 \div 8 = 5$, $40 \div 5 = 8$. Final: 7 and 6.

Page 7: 6, 6, 4, 6, 6, 6, 5, 9, 8, 6, 9, 9, 8, 9, 10.

Page 8: 4, 35, 9, 48, 5, 32, 9, 90, 7, 42, 8, 36.

Page 9: $13 \div 4 = 3$ r1; $17 \div 5 = 3$ r2; $22 \div 6 = 3$ r4; $29 \div 4 = 7$ r1; $35 \div 6 = 5$ r5; $43 \div 5 = 8$ r3. A remainder must be smaller than the divisor.

Page 10: 8 boxes; 7; 8; 7; 6 full bags and 1 left; 7 trays; 9.

Page 11: 1) No, 4. 2) $35 \div 5 = 7$ remainder 0. 3) 28. 4) 30, 35. 5) Equal, both 8. 6) 2, 3, 5, 6. 7) Answers vary, e.g. $24 \div 3 = 8$.

Page 12: 12, 12, 15, 13, 17, 12 r4; Q7 examples $36 \div 6$ and $42 \div 7$; 72; equal; 8 groups, 2 remain; Q11 varies; Q12 examples: 6, 12, 18, 24, 30, 36, 42, 48.