

Grade 5 Mathematics

Division

Complete Worksheet Pack – Advanced Practice

Multi-digit division • Remainders • Estimation • Reasoning • Multi-step problems

Worksheet 1 – Multi-Digit Division

Grade 5 Mathematics

A. Calculate

1. $7,854 \div 23 =$ _____

2. $12,936 \div 36 =$ _____

3. $24,675 \div 45 =$ _____

4. $18,432 \div 24 =$ _____

5. $35,280 \div 56 =$ _____

6. $46,872 \div 72 =$ _____

B. Check Your Answer

1. After finding $7,854 \div 23$, multiply your quotient by 23 and use the remainder to check your answer.

2. After finding $24,675 \div 45$, explain how you can check the result using multiplication.

3. Write a division equation with a 4-digit dividend, a 2-digit divisor and a remainder of 7.

Worksheet 2 – Remainders & Missing Numbers

Grade 5 Mathematics

A. Find Quotient and Remainder

1. $9,875 \div 32 =$ _____ remainder _____

2. $15,642 \div 27 =$ _____ remainder _____

3. $28,905 \div 46 =$ _____ remainder _____

4. $43,218 \div 58 =$ _____ remainder _____

5. $62,507 \div 75 =$ _____ remainder _____

B. Find the Missing Number

1. A number divided by 24 gives a quotient of 315 and a remainder of 17. What is the number?

2. A number divided by 35 gives a quotient of 208 and a remainder of 19. What is the number?

3. _____ $\div 48 = 276$ remainder 15.

4. _____ $\div 125 = 64$ remainder 38.

Worksheet 3 – Estimation & Error Analysis

Grade 5 Mathematics

A. Estimate Before Dividing

1. Estimate $12,936 \div 36$ using compatible numbers. Then calculate the exact answer.

2. Estimate $24,675 \div 45$. Is your estimate close to the exact quotient?

3. Estimate $62,507 \div 75$ by using a nearby dividend and divisor.

4. Which is a more reasonable estimate for $43,218 \div 58$: 70, 700 or 7,000? Explain.

B. Error Detective

1. A student says $7,854 \div 23 = 341$ remainder 11. Check the answer and explain the error.

2. A student says $12,936 \div 36 = 359$. Is this correct? Show a check.

3. A student estimates $35,280 \div 56$ as about 600. Is this a reasonable estimate? Explain.

Worksheet 4 – Division in Real Life

Grade 5 Mathematics

A. Solve & Interpret

1. A factory produces 18,750 items and packs 48 items in each box. How many complete boxes can be filled? How many items remain?

2. A school has 12,936 books to place equally on 36 shelves. How many books go on each shelf?

3. A travel company has 24,675 km of routes to divide equally among 45 buses. How many kilometres of routes are assigned to each bus?

4. A charity has \$62,507 and wants to give \$75 to each family. How many families can receive \$75, and how much money remains?

5. A farmer has 43,218 kg of grain and stores it in sacks of 58 kg. How many full sacks can be filled and how much grain remains?

B. Multi-Step Challenge

1. A warehouse has 15,642 bottles. They are packed into cartons of 27. Each full carton is then loaded onto pallets holding 12 cartons. How many complete pallets can be made, and how many cartons are left?

Worksheet 5 – Division Reasoning Challenge

Grade 5 Mathematics

A. Think Carefully

1. A divisor is 32, the quotient is 245 and the remainder is 18. What is the dividend?

2. Find the smallest number that leaves a remainder of 5 when divided by 18 and is greater than 500.

3. Find two different numbers that give a quotient of 125 when divided by 16, with different remainders.

4. A number divided by 27 gives a quotient of 408 and a remainder of 14. Is the number even or odd? Explain.

5. Without fully calculating, decide whether $48,000 \div 24$ is greater than 2,000. Explain.

B. True or False? Explain

1. A remainder can be equal to the divisor.

2. If a number is divisible by 12, it is always divisible by 6.

3. If the quotient is 250 and the divisor is 40, the dividend must be 10,000.

Answer Key – Worksheet 1

Grade 5 Mathematics

1. 341 remainder 11.
2. 359 remainder 12.
3. 548 remainder 15.
4. 768.
5. 630.
6. 651 remainder 0.
7. $23 \times 341 + 11 = 7,854$.
8. $45 \times 548 + 15 = 24,675$.
9. Answers vary; example: $1,247 \div 24 = 51$ remainder 23.

Answer Key – Worksheet 2

Grade 5 Mathematics

1. 308 remainder 19.
2. 579 remainder 9.
3. 628 remainder 37.
4. 745 remainder 8.
5. 833 remainder 32.
6. $24 \times 315 + 17 = 7,577$.
7. $35 \times 208 + 19 = 7,299$.
8. $48 \times 276 + 15 = 13,263$.
9. $125 \times 64 + 38 = 8,038$.

Answer Key – Worksheet 3

Grade 5 Mathematics

1. Estimate ≈ 360 ; exact = 359.
2. Estimate ≈ 500 ; exact = 548 remainder 15.
3. Estimate ≈ 800 ; exact = 833 remainder 32.
4. 700 is the reasonable estimate because $43,218 \div 58$ is about 745.
5. Incorrect. $23 \times 341 + 11 = 7,854$, so the quotient and remainder are actually correct.
6. Incorrect. $36 \times 359 = 12,924$, leaving 12; answer = 359 remainder 12.
7. Yes. $35,280 \div 56 = 630$, so 600 is a reasonable estimate.

Answer Key – Worksheet 4

Grade 5 Mathematics

1. 390 complete boxes, 30 items remain.
2. 359 books per shelf.
3. 548 km per bus.
4. 833 families, ■32 remains.
5. 745 full sacks, 8 kg remains.
6. $15,642 \div 27 = 579$ remainder 9; $579 \div 12 = 48$ remainder 3. Therefore 48 complete pallets and 3 cartons are left.

Answer Key – Worksheet 5

Grade 5 Mathematics

1. $32 \times 245 + 18 = 7,858$.
2. 509 (because 504 is the first number >500 that is divisible by 18; 509 leaves remainder 5).
3. Answers vary; example: $2,001 \div 16 = 125$ remainder 1 and $2,002 \div 16 = 125$ remainder 2.
4. Even. $27 \times 408 = 11,016$; $+14 = 11,030$, which is even.
5. Yes. $48,000 \div 24 = 2,000$, so it is equal, not greater.
6. False. The remainder must be less than the divisor.
7. True. If divisible by 12, it is divisible by 6.
8. False. The dividend could be greater if there is a remainder; with remainder 0 it is 10,000.