Grade 4 Math: Printables Pack

Grade 4 Math · Contents

1. Multiplication table to 12
2. Timed drills (× and ÷ to 12) with keys
3. Fact-mastery tracker
4. Place-value mat to millions
5. Fraction strips
6. Paper rulers
7. Graph paper
8. Record sheet
9. Unit checks and exams with keys

Print only what you need. The lesson worksheets and their keys are separate PDFs linked from each lesson.

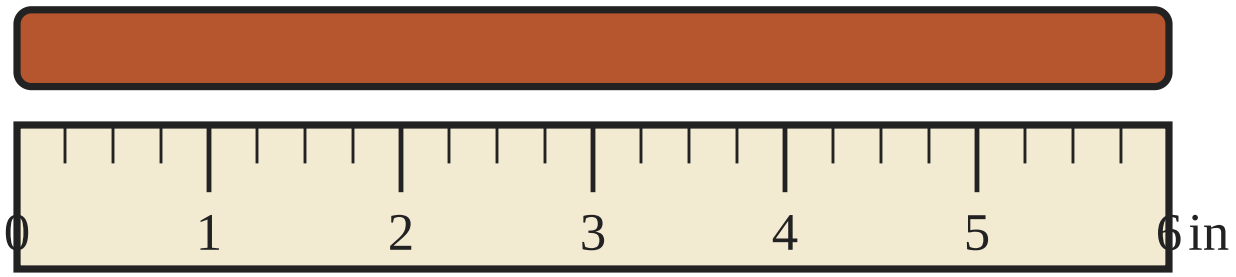
Place-Value Mat

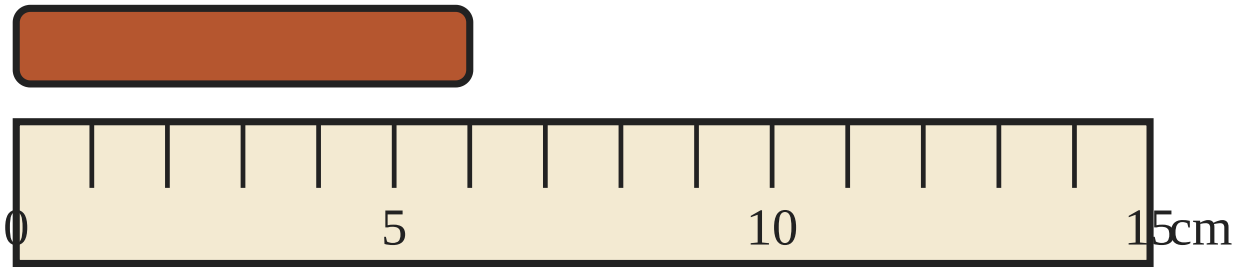
Grade 4 Math · Put blocks or digit cards in the right column.

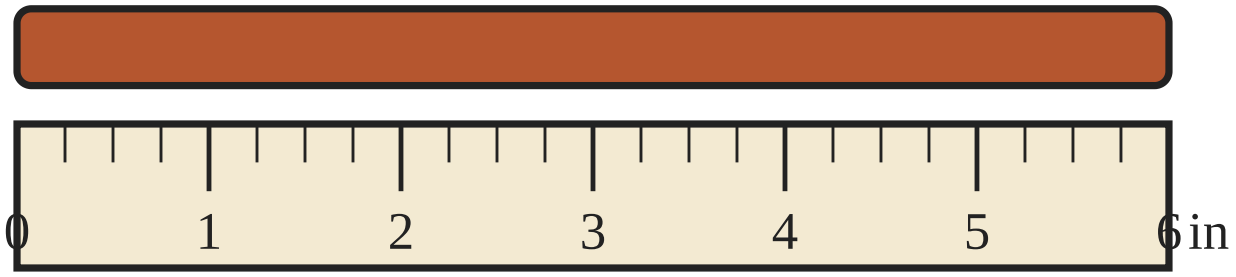
Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones

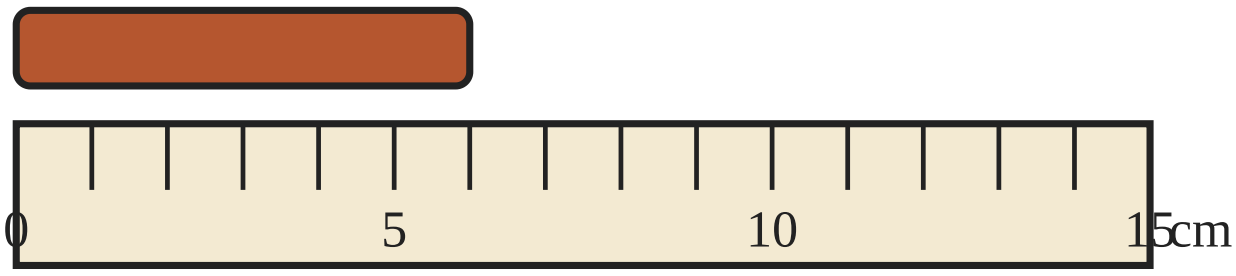
Paper Rulers

Grade 4 Math · Print at 100% (actual size, not “fit to page”) and check one inch against a real ruler before use.



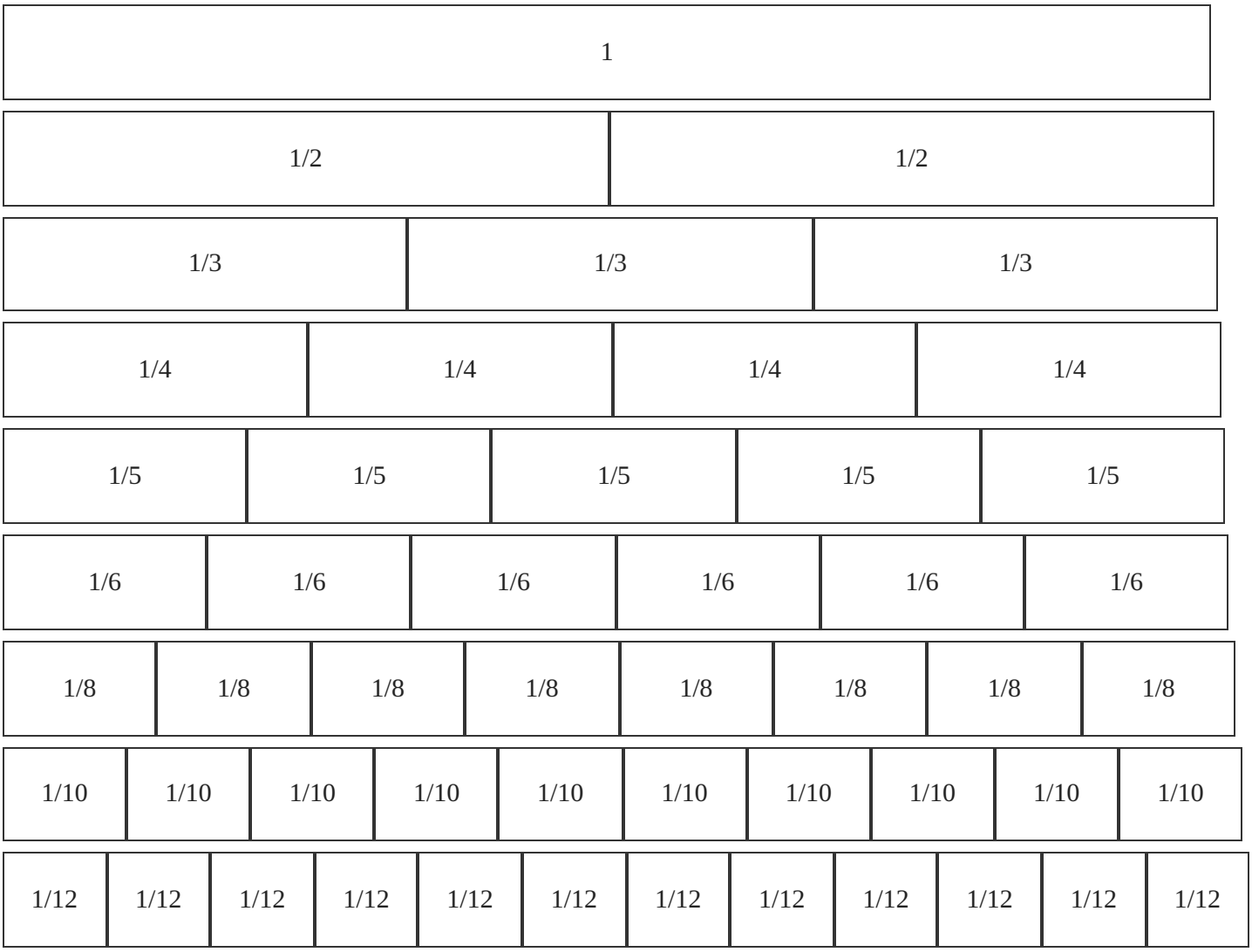






Fraction Strips

Grade 4 Math · Cut out each strip. Compare pieces to find equivalent fractions.



Multiplication Table to 12 × 12

Grade 4 Math · For reference while learning. Facts should become instant; then put this away.

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Timed Drill: Multiplication to 12

Grade 4 Math · One minute (or as long as it takes; record the time). Score ____ / 60

8 × 11 = ____	6 × 12 = ____	5 × 9 = ____	7 × 3 = ____
10 × 7 = ____	3 × 2 = ____	7 × 9 = ____	11 × 5 = ____
11 × 10 = ____	10 × 3 = ____	9 × 5 = ____	4 × 12 = ____
6 × 10 = ____	10 × 4 = ____	4 × 4 = ____	5 × 4 = ____
12 × 4 = ____	2 × 2 = ____	2 × 4 = ____	10 × 11 = ____
8 × 2 = ____	5 × 7 = ____	6 × 8 = ____	3 × 7 = ____
2 × 10 = ____	10 × 9 = ____	4 × 7 = ____	3 × 7 = ____
12 × 11 = ____	12 × 8 = ____	11 × 10 = ____	4 × 5 = ____
10 × 4 = ____	4 × 7 = ____	11 × 3 = ____	10 × 9 = ____
7 × 3 = ____	10 × 12 = ____	12 × 2 = ____	7 × 12 = ____
5 × 7 = ____	9 × 2 = ____	4 × 2 = ____	9 × 2 = ____
12 × 9 = ____	2 × 6 = ____	2 × 5 = ____	8 × 11 = ____
12 × 4 = ____	2 × 7 = ____	8 × 2 = ____	11 × 6 = ____
8 × 12 = ____	12 × 2 = ____	10 × 12 = ____	9 × 4 = ____
4 × 2 = ____	10 × 2 = ____	5 × 3 = ____	7 × 3 = ____

Timed Drill Key: Multiplication to 12

Grade 4 Math · For the parent. Every answer is computer-checked.

8 × 11 = **88**	6 × 12 = **72**	5 × 9 = **45**	7 × 3 = **21**
10 × 7 = **70**	3 × 2 = **6**	7 × 9 = **63**	11 × 5 = **55**
11 × 10 = **110**	10 × 3 = **30**	9 × 5 = **45**	4 × 12 = **48**
6 × 10 = **60**	10 × 4 = **40**	4 × 4 = **16**	5 × 4 = **20**
12 × 4 = **48**	2 × 2 = **4**	2 × 4 = **8**	10 × 11 = **110**
8 × 2 = **16**	5 × 7 = **35**	6 × 8 = **48**	3 × 7 = **21**
2 × 10 = **20**	10 × 9 = **90**	4 × 7 = **28**	3 × 7 = **21**
12 × 11 = **132**	12 × 8 = **96**	11 × 10 = **110**	4 × 5 = **20**
10 × 4 = **40**	4 × 7 = **28**	11 × 3 = **33**	10 × 9 = **90**
7 × 3 = **21**	10 × 12 = **120**	12 × 2 = **24**	7 × 12 = **84**
5 × 7 = **35**	9 × 2 = **18**	4 × 2 = **8**	9 × 2 = **18**
12 × 9 = **108**	2 × 6 = **12**	2 × 5 = **10**	8 × 11 = **88**
12 × 4 = **48**	2 × 7 = **14**	8 × 2 = **16**	11 × 6 = **66**
8 × 12 = **96**	12 × 2 = **24**	10 × 12 = **120**	9 × 4 = **36**
4 × 2 = **8**	10 × 2 = **20**	5 × 3 = **15**	7 × 3 = **21**

Timed Drill: Division to 12

Grade 4 Math · One minute (or as long as it takes; record the time). Score ____ / 60

6 ÷ 3 = ____
24 ÷ 4 = ____
50 ÷ 10 = ____
10 ÷ 2 = ____
120 ÷ 10 = ____
55 ÷ 5 = ____
120 ÷ 10 = ____
50 ÷ 10 = ____
30 ÷ 6 = ____
72 ÷ 6 = ____
4 ÷ 2 = ____
44 ÷ 11 = ____
14 ÷ 2 = ____
60 ÷ 6 = ____
60 ÷ 12 = ____

88 ÷ 8 = ____
40 ÷ 5 = ____
60 ÷ 5 = ____
20 ÷ 10 = ____
80 ÷ 8 = ____
96 ÷ 8 = ____
16 ÷ 4 = ____
72 ÷ 8 = ____
24 ÷ 6 = ____
42 ÷ 6 = ____
30 ÷ 6 = ____
48 ÷ 12 = ____
24 ÷ 2 = ____
48 ÷ 4 = ____
77 ÷ 11 = ____

90 ÷ 9 = ____
144 ÷ 12 = ____
36 ÷ 3 = ____
42 ÷ 7 = ____
42 ÷ 6 = ____
36 ÷ 9 = ____
55 ÷ 11 = ____
60 ÷ 12 = ____
110 ÷ 10 = ____
24 ÷ 8 = ____
10 ÷ 2 = ____
144 ÷ 12 = ____
99 ÷ 11 = ____
40 ÷ 5 = ____
12 ÷ 4 = ____

32 ÷ 8 = ____
60 ÷ 6 = ____
8 ÷ 2 = ____
45 ÷ 9 = ____
100 ÷ 10 = ____
108 ÷ 12 = ____
40 ÷ 10 = ____
30 ÷ 3 = ____
22 ÷ 11 = ____
10 ÷ 5 = ____
36 ÷ 12 = ____
88 ÷ 8 = ____
48 ÷ 4 = ____
12 ÷ 3 = ____
6 ÷ 3 = ____

Timed Drill Key: Division to 12

Grade 4 Math · For the parent. Every answer is computer-checked.

6 ÷ 3 = **2**
24 ÷ 4 = **6**
50 ÷ 10 = **5**
10 ÷ 2 = **5**
120 ÷ 10 = **12**
55 ÷ 5 = **11**
120 ÷ 10 = **12**
50 ÷ 10 = **5**
30 ÷ 6 = **5**
72 ÷ 6 = **12**
4 ÷ 2 = **2**
44 ÷ 11 = **4**
14 ÷ 2 = **7**
60 ÷ 6 = **10**
60 ÷ 12 = **5**

88 ÷ 8 = **11**
40 ÷ 5 = **8**
60 ÷ 5 = **12**
20 ÷ 10 = **2**
80 ÷ 8 = **10**
96 ÷ 8 = **12**
16 ÷ 4 = **4**
72 ÷ 8 = **9**
24 ÷ 6 = **4**
42 ÷ 6 = **7**
30 ÷ 6 = **5**
48 ÷ 12 = **4**
24 ÷ 2 = **12**
48 ÷ 4 = **12**
77 ÷ 11 = **7**

90 ÷ 9 = **10**
144 ÷ 12 = **12**
36 ÷ 3 = **12**
42 ÷ 7 = **6**
42 ÷ 6 = **7**
36 ÷ 9 = **4**
55 ÷ 11 = **5**
60 ÷ 12 = **5**
110 ÷ 10 = **11**
24 ÷ 8 = **3**
10 ÷ 2 = **5**
144 ÷ 12 = **12**
99 ÷ 11 = **9**
40 ÷ 5 = **8**
12 ÷ 4 = **3**

32 ÷ 8 = **4**
60 ÷ 6 = **10**
8 ÷ 2 = **4**
45 ÷ 9 = **5**
100 ÷ 10 = **10**
108 ÷ 12 = **9**
40 ÷ 10 = **4**
30 ÷ 3 = **10**
22 ÷ 11 = **2**
10 ÷ 5 = **2**
36 ÷ 12 = **3**
88 ÷ 8 = **11**
48 ÷ 4 = **12**
12 ÷ 3 = **4**
6 ÷ 3 = **2**

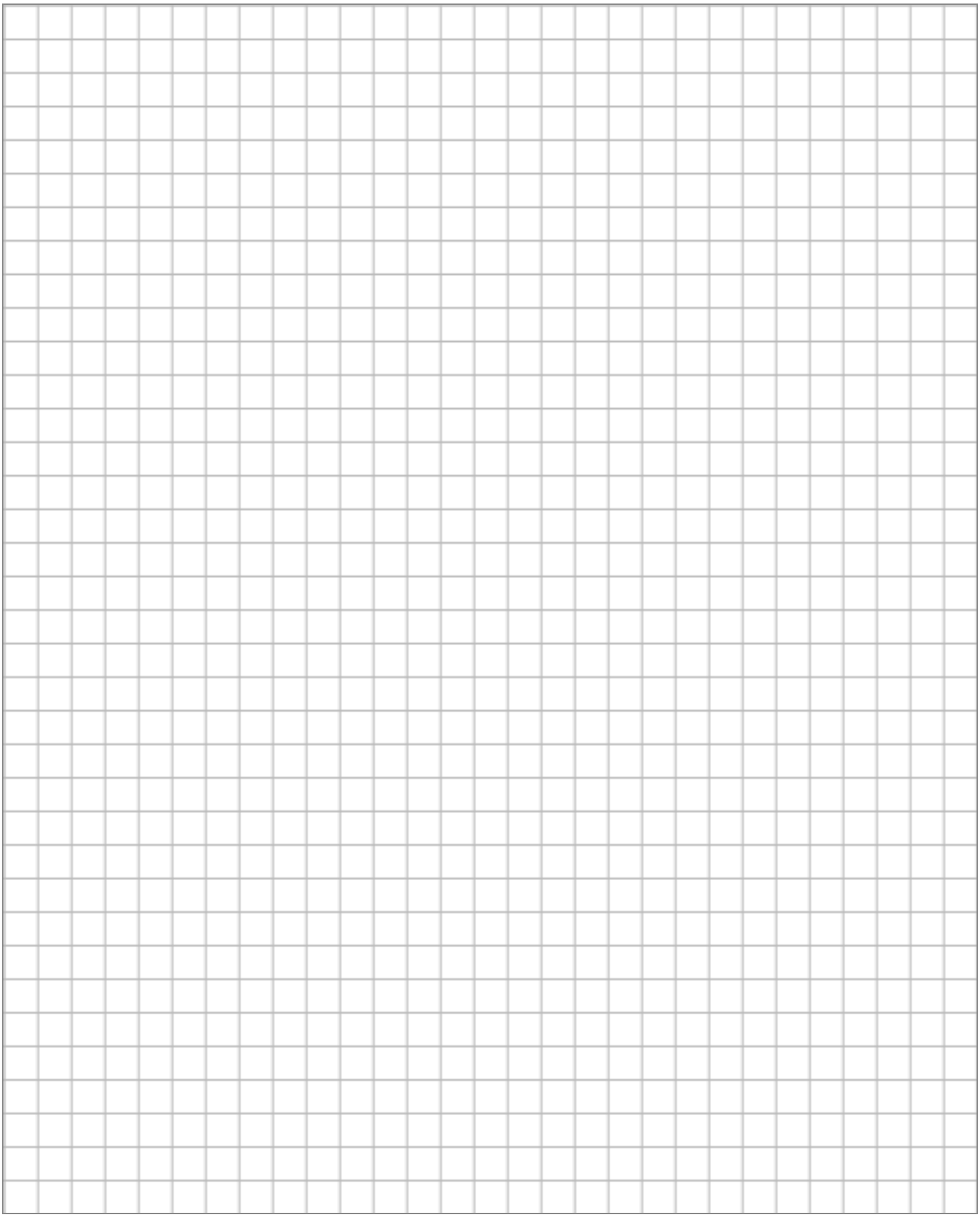
Fact-Mastery Tracker

Grade 4 Math · Each Friday write the score (or a check when every fact is answered in about 3 seconds).

Facts	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8
× to 10								
×11, ×12								
÷ to 10								
÷ by 11, 12								
Mixed × and ÷								

Graph Paper

Grade 4 Math · One digit per square keeps columns lined up.



Record Sheet

Grade 4 Math · One line per lesson: date finished, Worksheet A score, Worksheet B score, notes.

Lesson	Date	A	B	Notes
1.1 Reading and Writing Large Numbers				
1.2 Comparing and Rounding				
1.3 Adding Large Numbers				
1.4 Subtracting Large Numbers				
2.1 Multiplying by 10, 100, 1,000				
2.2 Partial Products				
2.3 The Standard Algorithm				
2.4 Estimating Products				
3.1 Area Model				
3.2 The Standard Algorithm				
3.3 Factors, Multiples, Primes				
3.4 Multi-Step Word Problems				
4.1 Division with Remainders				
4.2 Long Division Steps				
4.3 Zeros in the Quotient				
4.4 Interpreting Remainders				
5.1 Equivalent Fractions				
5.2 Comparing Fractions				
5.3 Mixed Numbers and Improper Fractions				
5.4 Simplest Form				
6.1 Adding Like Fractions				
6.2 Subtracting Like Fractions				
6.3 Mixed Numbers				
6.4 Whole Number × Fraction				
7.1 Tenths and Hundredths				
7.2 Decimals and Fractions				
7.3 Comparing Decimals				
7.4 Decimals and Money				
8.1 Customary Conversions				
8.2 Metric Conversions				
8.3 Angles and the Protractor				
8.4 Lines, Symmetry, Classifying Shapes				
9.1 Times as Many				
9.2 Likely and Unlikely				
9.3 Probability as a Fraction				
9.4 Percent: Out of a Hundred				

Placement Check

School Launch · Grade 4 Math · Grade 3 skills: × and ÷ facts, rounding, area and perimeter, fractions · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. 8 × 7 = ___ MEDIUM

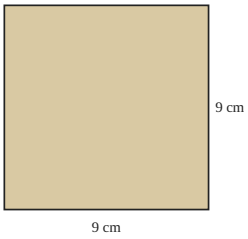
2. 45 ÷ 5 = ___ MEDIUM

3. Round 174 to the nearest 100. MEDIUM

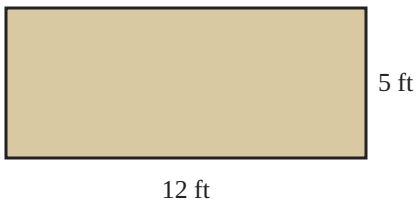
4. 4,158 + 1,270 = ___ MEDIUM

5. 1,626 − 144 = ___ MEDIUM

6. Find the area of a rectangle 9 cm long and 9 cm wide. MEDIUM



7. Find the perimeter of a rectangle 12 ft long and 5 ft wide. MEDIUM



8. Write < or > : $\frac{4}{5}$ ___ $\frac{2}{5}$ MEDIUM

9. Fill in the missing number: $\frac{1}{2} = \frac{?}{4}$ MEDIUM

10. A farmer has 2 rows of corn with 9 plants in each row. A storm knocks down 13 plants. How many plants are still standing? HARD

Answer Key · Placement Check

School Launch · Grade 4 Math · Grade 3 skills: × and ÷ facts, rounding, area and perimeter, fractions · Worksheet A · for the parent Key

1. 56

1. Break 8 into 3 and 5: 7 × 3 = 21
2. 7 × 5 = 35
3. 21 + 35 = 56

8 × 7 = ___

2. 9

1. Think multiplication: 5 × ___ = 45
2. 5 × 9 = 45

45 ÷ 5 = ___

3. 200

1. 174 is between 100 and 200.
2. Look at the tens digit: 7. 5 or more, so round up.
3. 174 rounds to 200.

Round 174 to the nearest 100.

4. 5,428

1. Ones: 8 + 0 = 8. Write 8.
2. Tens: 5 + 7 = 12. Write 2 and regroup 1 to the hundreds.
3. Hundreds: 1 + 1 + 2 = 4. Write 4.
4. Thousands: 4 + 1 = 5. Write 5.
5. 4,158 + 1,270 = 5,428

4,158 + 1,270 = ___

5. 1,482

1. Ones: 6 − 4 = 2
2. Tens: 2 is less than 4, so regroup 1 hundred as 10 tens. The hundreds digit becomes 5.
3. 12 − 4 = 8
4. Hundreds: 5 − 1 = 4
5. Thousands: 1 − 0 = 1
6. Check: 1,482 + 144 = 1,626

1,626 − 144 = ___

6. 81 square centimeters

1. Area = length × width
2. 9 × 9 = 81
3. Area = 81 square centimeters

Find the area of a rectangle 9 cm long and 9 cm wide.

7. 34 ft

1. Add all four sides: 12 + 5 + 12 + 5 = 34
2. Perimeter = 34 ft

Find the perimeter of a rectangle 12 ft long and 5 ft wide.

8. $\frac{4}{5} > \frac{2}{5}$

1. The parts are the same size, so compare the numerators: 4 and 2.
2. $\frac{4}{5} > \frac{2}{5}$

Write < or > : $\frac{4}{5}$ ___ $\frac{2}{5}$

9. 2

1. The denominator went from 2 to 4: 2 × 2 = 4.
2. Multiply the numerator by 2 too: 1 × 2 = 2
3. $\frac{1}{2} = \frac{2}{4}$

Fill in the missing number: $\frac{1}{2} = \frac{?}{4}$

10. 5 plants. 5 plants are still standing.

1. Unknown: the final amount.
2. Two steps: first find the total of the equal groups, then take away the extra.
3. Step 1: 2 × 9 = 18
4. Step 2: 18 − 13 = 5
5. Answer: 5 plants are still standing.

A farmer has 2 rows of corn with 9 plants in each row. A storm knocks down 13 plants. How many plants are still standing?

Unit 1 Test: Place Value to a Million

School Launch · Grade 4 Math · Unit 1: Place Value to a Million · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. Write 395,027 in expanded form. MEDIUM

2. Write the number in digits: *seven hundred forty thousand six hundred eleven* HARD

3. Write 863,884 in expanded form. MEDIUM

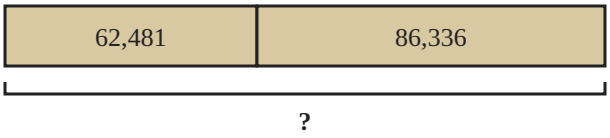
4. Round 2,706 to the nearest 1,000. MEDIUM

5. Round 208,705 to the nearest 10,000. HARD

6. Round 6,913 to the nearest 1,000. MEDIUM

7. 88,238 + 64,920 = ___ MEDIUM

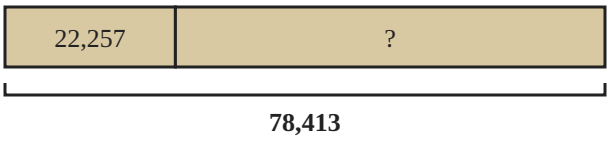
8. A carpenter cut 62,481 boards on Monday and 86,336 boards on Tuesday. How many boards did he cut? HARD



9. 74,275 + 86,116 = ___ MEDIUM

10. 75,105 − 18,457 = ___ MEDIUM

11. A blacksmith had 78,413 nails. He used 22,257 to shoe the horses. How many nails are left? HARD



12. 33,409 − 13,691 = ___ MEDIUM

Answer Key · Unit 1 Test: Place Value to a Million

School Launch · Grade 4 Math · Unit 1: Place Value to a Million · Worksheet A · for the parent

Key

1. 300,000 + 90,000 + 5,000 + 20 + 7

1. Write each digit times its place value: 300,000 + 90,000 + 5,000 + 20 + 7
2. Check: 300,000 + 90,000 + 5,000 + 20 + 7 = 395,027

Write 395,027 in expanded form.

2. 740,611

1. Read it in groups: seven hundred forty thousand six hundred eleven → 740,611

Write the number in digits: *seven hundred forty thousand six hundred eleven*

3. 800,000 + 60,000 + 3,000 + 800 + 80 + 4

1. Write each digit times its place value: 800,000 + 60,000 + 3,000 + 800 + 80 + 4
2. Check: 800,000 + 60,000 + 3,000 + 800 + 80 + 4 = 863,884

Write 863,884 in expanded form.

4. 3,000

1. 2,706 is between 2,000 and 3,000.
2. Look at the hundreds digit: 7. 5 or more, so round up.
3. 2,706 rounds to 3,000.

Round 2,706 to the nearest 1,000.

5. 210,000

1. 208,705 is between 200,000 and 210,000.
2. Look at the thousands digit: 8. 5 or more, so round up.
3. 208,705 rounds to 210,000.

Round 208,705 to the nearest 10,000.

6. 7,000

1. 6,913 is between 6,000 and 7,000.
2. Look at the hundreds digit: 9. 5 or more, so round up.
3. 6,913 rounds to 7,000.

Round 6,913 to the nearest 1,000.

7. 153,158

1. Ones: 8 + 0 = 8. Write 8.
2. Tens: 3 + 2 = 5. Write 5.
3. Hundreds: 2 + 9 = 11. Write 1 and regroup 1 to the thousands.
4. Thousands: 1 + 8 + 4 = 13. Write 3 and regroup 1 to the ten thousands.
5. Ten thousands: 1 + 8 + 6 = 15. Write 15.
6. 88,238 + 64,920 = 153,158

88,238 + 64,920 = ___

8. 148,817 boards. He cut 148,817 boards.

1. Unknown: the total.
2. Bar model: two parts, 62,481 and 86,336; the whole is unknown.
3. Equation: 62,481 + 86,336 = ?
4. 62,481 + 86,336 = 148,817
5. Answer: He cut 148,817 boards.

A carpenter cut 62,481 boards on Monday and 86,336 boards on Tuesday. How many boards did he cut?

9. 160,391

1. Ones: 5 + 6 = 11. Write 1 and regroup 1 to the tens.
2. Tens: 1 + 7 + 1 = 9. Write 9.
3. Hundreds: 2 + 1 = 3. Write 3.
4. Thousands: 4 + 6 = 10. Write 0 and regroup 1 to the ten thousands.
5. Ten thousands: 1 + 7 + 8 = 16. Write 16.
6. 74,275 + 86,116 = 160,391

74,275 + 86,116 = ___

10. 56,648

1. Ones: 5 is less than 7, and the next place holds 0, so regroup from the hundreds: 1 becomes 0 and each 0 in between becomes 9.
2. 15 − 7 = 8
3. Tens: 9 − 5 = 4
4. Hundreds: 0 is less than 4, so regroup 1 thousand as 10 hundreds. The thousands digit becomes 4.
5. 10 − 4 = 6
6. Thousands: 4 is less than 8, so regroup 1 ten thousand as 10 thousands. The ten thousands digit becomes 6.
7. 14 − 8 = 6
8. Ten thousands: 6 − 1 = 5
9. Check: 56,648 + 18,457 = 75,105

75,105 − 18,457 = ___

11. 56,156 nails. 56,156 nails are left.

1. Unknown: how many are left.
2. Bar model: the whole is 78,413; one part is 22,257; the other part is unknown.
3. Equation: 78,413 − 22,257 = ?
4. 78,413 − 22,257 = 56,156
5. Answer: 56,156 nails are left.

A blacksmith had 78,413 nails. He used 22,257 to shoe the horses. How many nails are left?

12. 19,718

1. Ones: 9 − 1 = 8
2. Tens: 0 is less than 9, so regroup 1 hundred as 10 tens. The hundreds digit becomes 3.
3. 10 − 9 = 1
4. Hundreds: 3 is less than 6, so regroup 1 thousand as 10 hundreds. The thousands digit becomes 2.
5. 13 − 6 = 7
6. Thousands: 2 is less than 3, so regroup 1 ten thousand as 10 thousands. The ten thousands digit becomes 2.
7. 12 − 3 = 9
8. Ten thousands: 2 − 1 = 1
9. Check: 19,718 + 13,691 = 33,409

33,409 − 13,691 = ___

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

Unit 2 Test: Multiplying by One Digit

School Launch · Grade 4 Math · Unit 2: Multiplying by One Digit · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

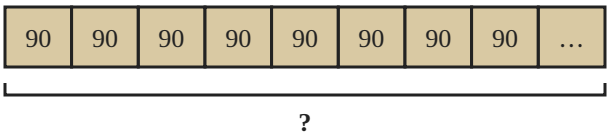
1. 7 × 300 = ___ MEDIUM

2. 5 × 2,000 = ___ HARD

3. 8 × 600 = ___ MEDIUM

4. 8 × 230 = ___ MEDIUM

5. Each of the 88 disciples carried 90 loaves. How many loaves did they carry? HARD



6. 6 × 214 = ___ MEDIUM

7. 8 × 593 = ___ MEDIUM

8. 8 × 7,079 = ___ HARD

9. 2 × 509 = ___ MEDIUM

10. 6 × 50 = ___ MEDIUM

11. A pound of nails costs $0.20. How much do 6 pounds cost? HARD

12. 8 × 40 = ___ MEDIUM

Answer Key · Unit 2 Test: Multiplying by One Digit

School Launch · Grade 4 Math · Unit 2: Multiplying by One Digit · Worksheet A · for the parent

Key

1. 2,100

1. 300 = 3 × 100
2. 7 × 3 = 21
3. 21 × 100 = 2,100

7 × 300 = ___

2. 10,000

1. 2,000 = 2 × 1,000
2. 5 × 2 = 10
3. 10 × 1,000 = 10,000

5 × 2,000 = ___

3. 4,800

1. 600 = 6 × 100
2. 8 × 6 = 48
3. 48 × 100 = 4,800

8 × 600 = ___

4. 1,840

1. Break apart: 8 = 8 and 230 = 200 + 30
2. 8 × 200 = 1,600
3. 8 × 30 = 240
4. 1,600 + 240 = 1,840

8 × 230 = ___

5. 7,920 loaves. They carried 7,920 loaves.

1. Unknown: the total.
2. Bar model: 88 equal parts of 90; the whole is unknown.
3. Equation: 88 × 90 = ?
4. 88 × 90 = 7,920
5. Answer: They carried 7,920 loaves.

Each of the 88 disciples carried 90 loaves. How many loaves did they carry?

6. 1,284

1. Break apart: 6 = 6 and 214 = 200 + 10 + 4
2. 6 × 200 = 1,200
3. 6 × 10 = 60
4. 6 × 4 = 24
5. 1,200 + 60 + 24 = 1,284

6 × 214 = ___

7. 4,744

1. Multiply 8 by each digit of 593, starting with the ones.
2. 8 × 3 = 24
3. 8 × 90 = 720 (start this row with 1 zero as a placeholder)
4. 8 × 500 = 4,000 (start this row with 2 zeros as a placeholder)
5. Add the rows: 24 + 720 + 4,000 = 4,744

8 × 593 = ___

8. 56,632

1. Multiply 8 by each digit of 7,079, starting with the ones.
2. 8 × 9 = 72
3. 8 × 70 = 560 (start this row with 1 zero as a placeholder)
4. 8 × 0 = 0 (start this row with 2 zeros as a placeholder)
5. 8 × 7,000 = 56,000 (start this row with 3 zeros as a placeholder)
6. Add the rows: 72 + 560 + 0 + 56,000 = 56,632

8 × 7,079 = ___

9. 1,018

1. Multiply 2 by each digit of 509, starting with the ones.
2. 2 × 9 = 18
3. 2 × 0 = 0 (start this row with 1 zero as a placeholder)
4. 2 × 500 = 1,000 (start this row with 2 zeros as a placeholder)
5. Add the rows: 18 + 0 + 1,000 = 1,018

2 × 509 = ___

10. 300

1. 50 = 5 × 10
2. 6 × 5 = 30
3. 30 × 10 = 300

6 × 50 = ___

11. $1.20. 6 pounds cost $1.20.

1. Work in cents: 20 × 6 = 120
2. 120 cents = $1.20

A pound of nails costs $0.20. How much do 6 pounds cost?

12. 320

1. 40 = 4 × 10
2. 8 × 4 = 32
3. 32 × 10 = 320

8 × 40 = ___

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

Unit 3 Test: Multiplying Two Digits

School Launch · Grade 4 Math · Unit 3: Multiplying Two Digits · Worksheet A

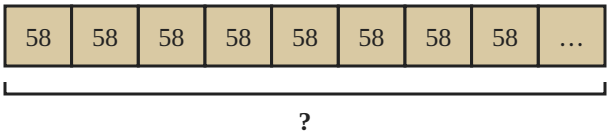
No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. 98 × 44 = ___ MEDIUM

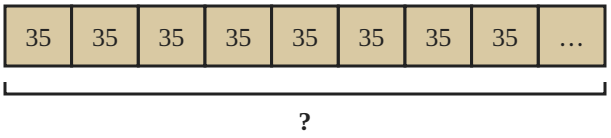
2. A cobbler makes 58 pairs of shoes a day. How many pairs does he make in 22 days? HARD



3. 13 × 99 = ___ MEDIUM

4. 58 × 38 = ___ MEDIUM

5. A Roman soldier marched 35 miles a day for 61 days. How far did he march? HARD



6. 11 × 94 = ___ MEDIUM

7. List all the factors of 53. MEDIUM

8. Is 96 prime or composite? HARD

9. List all the factors of 33. MEDIUM

10. Peter caught 24 fish each day for 4 days and then gave away 5. How many fish does he have? HARD

11. Peter caught 17 fish each day for 34 days and then gave away 344. How many fish does he have? HARD

12. A farmer has 8 rows of corn with 6 plants in each row. A storm knocks down 6 plants. How many plants are still standing? HARD

Answer Key · Unit 3 Test: Multiplying Two Digits

School Launch · Grade 4 Math · Unit 3: Multiplying Two Digits · Worksheet A · for the parent

Key

1. 4,312

1. Break apart: 98 = 90 + 8 and 44 = 40 + 4
2. 90 × 40 = 3,600
3. 8 × 40 = 320
4. 90 × 4 = 360
5. 8 × 4 = 32
6. 3,600 + 320 + 360 + 32 = 4,312

98 × 44 = ___

2. 1,276 pairs. He makes 1,276 pairs.

1. Unknown: the total.
2. Bar model: 22 equal parts of 58; the whole is unknown.
3. Equation: 22 × 58 = ?
4. 22 × 58 = 1,276
5. Answer: He makes 1,276 pairs.

A cobbler makes 58 pairs of shoes a day. How many pairs does he make in 22 days?

3. 1,287

1. Break apart: 13 = 10 + 3 and 99 = 90 + 9
2. 10 × 90 = 900
3. 3 × 90 = 270
4. 10 × 9 = 90
5. 3 × 9 = 27
6. 900 + 270 + 90 + 27 = 1,287

13 × 99 = ___

4. 2,204

1. Multiply 58 by each digit of 38, starting with the ones.
2. 58 × 8 = 464
3. 58 × 30 = 1,740 (start this row with 1 zero as a placeholder)
4. Add the rows: 464 + 1,740 = 2,204

58 × 38 = ___

5. 2,135 miles. He marched 2,135 miles.

1. Unknown: the total.
2. Bar model: 61 equal parts of 35; the whole is unknown.
3. Equation: 61 × 35 = ?
4. 61 × 35 = 2,135
5. Answer: He marched 2,135 miles.

A Roman soldier marched 35 miles a day for 61 days. How far did he march?

6. 1,034

1. Multiply 11 by each digit of 94, starting with the ones.
2. 11 × 4 = 44
3. 11 × 90 = 990 (start this row with 1 zero as a placeholder)
4. Add the rows: 44 + 990 = 1,034

11 × 94 = ___

7. 1, 53

1. Find factor pairs: 1 × 53 = 53
2. Factors: 1, 53

List all the factors of 53.

8. composite

1. 2 × 48 = 96, so 96 has more than two factors.
2. 96 is composite.

Is 96 prime or composite?

9. 1, 3, 11, 33

1. Find factor pairs: 1 × 33 = 33; 3 × 11 = 33
2. Factors: 1, 3, 11, 33

List all the factors of 33.

10. 91 fish. He has 91 fish.

1. Unknown: the final amount.
2. Two steps: first find the total of the equal groups, then take away the extra.
3. Step 1: 24 × 4 = 96
4. Step 2: 96 − 5 = 91
5. Answer: He has 91 fish.

Peter caught 24 fish each day for 4 days and then gave away 5. How many fish does he have?

11. 234 fish. He has 234 fish.

1. Unknown: the final amount.
2. Two steps: first find the total of the equal groups, then take away the extra.
3. Step 1: 17 × 34 = 578
4. Step 2: 578 − 344 = 234
5. Answer: He has 234 fish.

Peter caught 17 fish each day for 34 days and then gave away 344. How many fish does he have?

12. 42 plants. 42 plants are still standing.

1. Unknown: the final amount.
2. Two steps: first find the total of the equal groups, then take away the extra.
3. Step 1: 8 × 6 = 48
4. Step 2: 48 − 6 = 42
5. Answer: 42 plants are still standing.

A farmer has 8 rows of corn with 6 plants in each row. A storm knocks down 6 plants. How many plants are still standing?

Unit 4 Test: Long Division

School Launch · Grade 4 Math · Unit 4: Long Division · Worksheet A

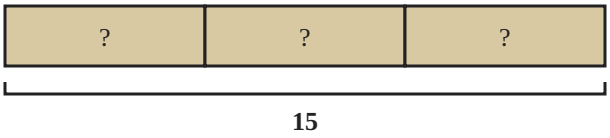
No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. 23 ÷ 8 = ___ MEDIUM

2. 15 apples are shared equally among 3 baskets. How many apples go in each basket? HARD



3. 24 ÷ 9 = ___ MEDIUM

4. 108 ÷ 4 = ___ MEDIUM

5. 205 ÷ 7 = ___ HARD

6. 664 ÷ 8 = ___ MEDIUM

7. 7,805 ÷ 3 = ___ MEDIUM

8. 2,722 ÷ 9 = ___ HARD

9. 7,711 ÷ 7 = ___ MEDIUM

10. 22 apples are shared equally into 5 baskets. How many apples are left over? HARD

11. A baker has 28 eggs. Each cake takes 8 eggs. How many whole cakes can she bake? HARD

12. 31 people need rides to church. Each wagon holds 4. How many wagons are needed so everyone rides? HARD

Answer Key · Unit 4 Test: Long Division

School Launch · Grade 4 Math · Unit 4: Long Division · Worksheet A · for the parent

Key

1. 2 R 7

1. Biggest multiple of 8 that fits in 23: 8 × 2 = 16
2. 23 − 16 = 7
3. 7 is less than 8, so the answer is 2 R 7.
4. Check: 8 × 2 + 7 = 23

23 ÷ 8 = ___

2. 5 apples. Each basket gets 5 apples.

1. Unknown: the size of each group.
2. Bar model: the whole is 15, cut into 3 equal parts.
3. Equation: 15 ÷ 3 = ?
4. 15 ÷ 3 = 5
5. Answer: Each basket gets 5 apples.

15 apples are shared equally among 3 baskets. How many apples go in each basket?

3. 2 R 6

1. Biggest multiple of 9 that fits in 24: 9 × 2 = 18
2. 24 − 18 = 6
3. 6 is less than 9, so the answer is 2 R 6.
4. Check: 9 × 2 + 6 = 24

24 ÷ 9 = ___

4. 27

1. How many 4s in 10? 2. 4 × 2 = 8. 10 − 8 = 2. Bring down the 8.
2. How many 4s in 28? 7. 4 × 7 = 28. 28 − 28 = 0.
3. Check: 4 × 27 = 108

108 ÷ 4 = ___

5. 29 R 2

1. How many 7s in 20? 2. 7 × 2 = 14. 20 − 14 = 6. Bring down the 5.
2. How many 7s in 65? 9. 7 × 9 = 63. 65 − 63 = 2.
3. Check: 7 × 29 + 2 = 205

205 ÷ 7 = ___

6. 83

1. How many 8s in 66? 8. 8 × 8 = 64. 66 − 64 = 2. Bring down the 4.
2. How many 8s in 24? 3. 8 × 3 = 24. 24 − 24 = 0.
3. Check: 8 × 83 = 664

664 ÷ 8 = ___

7. 2,601 R 2

1. How many 3s in 7? 2. 3 × 2 = 6. 7 − 6 = 1. Bring down the 8.
2. How many 3s in 18? 6. 3 × 6 = 18. 18 − 18 = 0. Bring down the 0.
3. How many 3s in 0? 0. 3 × 0 = 0. 0 − 0 = 0. Bring down the 5.
4. How many 3s in 5? 1. 3 × 1 = 3. 5 − 3 = 2.
5. Check: 3 × 2,601 + 2 = 7,805

7,805 ÷ 3 = ___

8. 302 R 4

1. How many 9s in 27? 3. 9 × 3 = 27. 27 − 27 = 0. Bring down the 2.
2. How many 9s in 2? 0. 9 × 0 = 0. 2 − 0 = 2. Bring down the 2.
3. How many 9s in 22? 2. 9 × 2 = 18. 22 − 18 = 4.
4. Check: 9 × 302 + 4 = 2,722

2,722 ÷ 9 = ___

9. 1,101 R 4

1. How many 7s in 7? 1. 7 × 1 = 7. 7 − 7 = 0. Bring down the 7.
2. How many 7s in 7? 1. 7 × 1 = 7. 7 − 7 = 0. Bring down the 1.
3. How many 7s in 1? 0. 7 × 0 = 0. 1 − 0 = 1. Bring down the 1.
4. How many 7s in 11? 1. 7 × 1 = 7. 11 − 7 = 4.
5. Check: 7 × 1,101 + 4 = 7,711

7,711 ÷ 7 = ___

10. 2

1. 22 ÷ 5: 5 × 4 = 20, and 22 − 20 = 2. So 22 ÷ 5 is 4 R 2.
2. The question asks for what is left over, which is the remainder: 2.

22 apples are shared equally into 5 baskets. How many apples are left over?

11. 3

1. 28 ÷ 8: 8 × 3 = 24, and 28 − 24 = 4. So 28 ÷ 8 is 3 R 4.
2. The 4 leftover eggs are not enough for another cake, so the answer is 3.

A baker has 28 eggs. Each cake takes 8 eggs. How many whole cakes can she bake?

12. 8

1. 31 ÷ 4: 4 × 7 = 28, and 31 − 28 = 3. So 31 ÷ 4 is 7 R 3.
2. 7 full wagons leave 3 people behind, so one more wagon is needed: 7 + 1 = 8.

31 people need rides to church. Each wagon holds 4. How many wagons are needed so everyone rides?

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

Unit 5 Test: Equivalent Fractions

School Launch · Grade 4 Math · Unit 5: Equivalent Fractions · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. Fill in the missing number: $\frac{2}{6} = \frac{?}{24}$ MEDIUM

2. Fill in the missing number: $\frac{1}{5} = \frac{?}{15}$ HARD

3. Fill in the missing number: $\frac{3}{4} = \frac{?}{8}$ MEDIUM

4. Write < or > : $\frac{2}{3}$ ___ $\frac{1}{2}$ MEDIUM

5. Write < or > : $\frac{4}{5}$ ___ $\frac{5}{12}$ HARD

6. Write < or > : $\frac{1}{2}$ ___ $\frac{5}{6}$ MEDIUM

7. Write $2\frac{2}{3}$ as an improper fraction. MEDIUM

8. Write $\frac{18}{5}$ as a mixed number. HARD

9. Write $3\frac{3}{5}$ as an improper fraction. MEDIUM

10. Write $\frac{10}{25}$ in simplest form. MEDIUM

11. Write $\frac{3}{9}$ in simplest form. HARD

12. Write $\frac{2}{8}$ in simplest form. MEDIUM

Answer Key · Unit 5 Test: Equivalent Fractions

School Launch · Grade 4 Math · Unit 5: Equivalent Fractions · Worksheet A · for the parent

Key

1. 8

1. The denominator went from 6 to 24: 6 × 4 = 24.
2. Multiply the numerator by 4 too: 2 × 4 = 8
3. $\frac{2}{6} = \frac{8}{24}$

Fill in the missing number: $\frac{2}{6} = \frac{?}{24}$

---

2. 3

1. The denominator went from 5 to 15: 5 × 3 = 15.
2. Multiply the numerator by 3 too: 1 × 3 = 3
3. $\frac{1}{5} = \frac{3}{15}$

Fill in the missing number: $\frac{1}{5} = \frac{?}{15}$

---

3. 6

1. The denominator went from 4 to 8: 4 × 2 = 8.
2. Multiply the numerator by 2 too: 3 × 2 = 6
3. $\frac{3}{4} = \frac{6}{8}$

Fill in the missing number: $\frac{3}{4} = \frac{?}{8}$

---

4. $\frac{2}{3} > \frac{1}{2}$

1. Use the common denominator 6: $\frac{2}{3} = \frac{4}{6}$ and $\frac{1}{2} = \frac{3}{6}$.
2. $\frac{2}{3} > \frac{1}{2}$

Write < or > : $\frac{2}{3}$ ___ $\frac{1}{2}$

---

5. $\frac{4}{5} > \frac{5}{12}$

1. Use the common denominator 60: $\frac{4}{5} = \frac{48}{60}$ and $\frac{5}{12} = \frac{25}{60}$.
2. $\frac{4}{5} > \frac{5}{12}$

Write < or > : $\frac{4}{5}$ ___ $\frac{5}{12}$

---

6. $\frac{1}{2} < \frac{5}{6}$

1. Use the common denominator 6: $\frac{1}{2} = \frac{3}{6}$ and $\frac{5}{6} = \frac{5}{6}$.
2. $\frac{1}{2} < \frac{5}{6}$

Write < or > : $\frac{1}{2}$ ___ $\frac{5}{6}$

---

7. $\frac{8}{3}$

1. 2 wholes = 2 × 3 = 6 thirds
2. 6 + 2 = 8
3. $2\frac{2}{3} = \frac{8}{3}$

Write $2\frac{2}{3}$ as an improper fraction.

---

8. $3\frac{3}{5}$

1. 18 ÷ 5: 5 × 3 = 15, and 18 − 15 = 3
2. 3 wholes and 3 fifths left over: $3\frac{3}{5}$

Write $\frac{18}{5}$ as a mixed number.

---

9. $\frac{18}{5}$

1. 3 wholes = 3 × 5 = 15 fifths
2. 15 + 3 = 18
3. $3\frac{3}{5} = \frac{18}{5}$

Write $3\frac{3}{5}$ as an improper fraction.

---

10. $\frac{2}{5}$

1. The greatest common factor of 10 and 25 is 5.
2. 10 ÷ 5 = 2 and 25 ÷ 5 = 5
3. $\frac{10}{25} = \frac{2}{5}$

Write $\frac{10}{25}$ in simplest form.

---

11. $\frac{1}{3}$

1. The greatest common factor of 3 and 9 is 3.
2. 3 ÷ 3 = 1 and 9 ÷ 3 = 3
3. $\frac{3}{9} = \frac{1}{3}$

Write $\frac{3}{9}$ in simplest form.

---

12. $\frac{1}{4}$

1. The greatest common factor of 2 and 8 is 2.
2. 2 ÷ 2 = 1 and 8 ÷ 2 = 4
3. $\frac{2}{8} = \frac{1}{4}$

Write $\frac{2}{8}$ in simplest form.

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

Unit 6 Test: Fraction Operations

School Launch · Grade 4 Math · Unit 6: Fraction Operations · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. $\frac{3}{8} + \frac{1}{8} =$ ___ MEDIUM

2. A carpenter planed $\frac{1}{2}$ inch off one board and $\frac{4}{5}$ inch off another. How much did he plane off in all? HARD

3. $\frac{1}{3} + \frac{2}{3} =$ ___ MEDIUM

4. $\frac{3}{4} - \frac{1}{4} =$ ___ MEDIUM

5. A jug held $\frac{1}{2}$ gallon of milk. The family drank $\frac{1}{4}$ gallon. How much milk is left? HARD

6. $\frac{7}{8} - \frac{1}{8} =$ ___ MEDIUM

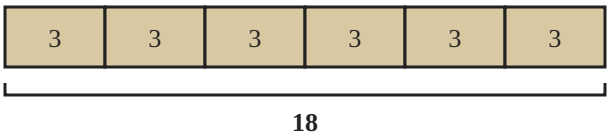
7. $3\frac{1}{4} + 3\frac{3}{4} =$ ___ MEDIUM

8. $2\frac{1}{4} - \frac{3}{4} =$ ___ HARD

9. $2\frac{1}{4} + \frac{3}{4} =$ ___ MEDIUM

10. $\frac{1}{6} \times 4 =$ ___ MEDIUM

11. A baker made 18 rolls and sold $\frac{4}{6}$ of them by noon. How many rolls did she sell? HARD



12. $\frac{1}{10} \times 3 =$ ___ MEDIUM

Answer Key · Unit 6 Test: Fraction Operations

School Launch · Grade 4 Math · Unit 6: Fraction Operations · Worksheet A · for the parent

Key

1. $\frac{4}{8}$

1. The denominators match, so add the numerators: 3 + 1 = 4
2. $\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$
3. Simplify: $\frac{4}{8} = \frac{1}{2}$

$\frac{3}{8} + \frac{1}{8} =$ ___

2. $1\frac{3}{10}$ inches. He planed off $1\frac{3}{10}$ inches in all.

1. Unknown: the total.
2. Common denominator 10: $\frac{1}{2} = \frac{5}{10}$, $\frac{4}{5} = \frac{8}{10}$
3. $\frac{5}{10} + \frac{8}{10} = \frac{13}{10} = 1\frac{3}{10}$
4. Answer: He planed off $1\frac{3}{10}$ inches in all.

A carpenter planed $\frac{1}{2}$ inch off one board and $\frac{4}{5}$ inch off another. How much did he plane off in all?

3. 1

1. The denominators match, so add the numerators: 1 + 2 = 3
2. $\frac{1}{3} + \frac{2}{3} = \frac{3}{3}$
3. Simplify: $\frac{3}{3} = 1$

$\frac{1}{3} + \frac{2}{3} =$ ___

4. $\frac{2}{4}$

1. The denominators match, so subtract the numerators: 3 − 1 = 2
2. $\frac{3}{4} - \frac{1}{4} = \frac{2}{4}$
3. Simplify: $\frac{2}{4} = \frac{1}{2}$

$\frac{3}{4} - \frac{1}{4} =$ ___

5. $\frac{1}{4}$ gallon. $\frac{1}{4}$ gallon is left.

1. Unknown: how much is left.
2. Common denominator 4: $\frac{1}{2} = \frac{2}{4}$, $\frac{1}{4} = \frac{1}{4}$
3. $\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$
4. Answer: $\frac{1}{4}$ gallon is left.

A jug held $\frac{1}{2}$ gallon of milk. The family drank $\frac{1}{4}$ gallon. How much milk is left?

6. $\frac{6}{8}$

1. The denominators match, so subtract the numerators: 7 − 1 = 6
2. $\frac{7}{8} - \frac{1}{8} = \frac{6}{8}$
3. Simplify: $\frac{6}{8} = \frac{3}{4}$

$\frac{7}{8} - \frac{1}{8} =$ ___

7. 7

1. Whole numbers: 3 + 3 = 6
2. Fractions: $\frac{1}{4} + \frac{3}{4} = \frac{4}{4}$
3. $\frac{4}{4} = 1$, so 6 + 1 = 7

$3\frac{1}{4} + 3\frac{3}{4} =$ ___

8. $1\frac{1}{2}$

1. $\frac{1}{4}$ is less than $\frac{3}{4}$, so regroup 1 whole as $\frac{4}{4}$: 2 and $\frac{1}{4}$ becomes 1 and $\frac{5}{4}$.
2. Whole numbers: 1 − 0 = 1
3. Fractions: $\frac{5}{4} - \frac{3}{4} = \frac{2}{4}$
4. Simplify: $\frac{2}{4} = \frac{1}{2}$, so the answer is $1\frac{1}{2}$

$2\frac{1}{4} - \frac{3}{4} =$ ___

9. 3

1. Whole numbers: 2 + 0 = 2
2. Fractions: $\frac{1}{4} + \frac{3}{4} = \frac{4}{4}$
3. $\frac{4}{4} = 1$, so 2 + 1 = 3

$2\frac{1}{4} + \frac{3}{4} =$ ___

10. $\frac{2}{3}$

1. $\frac{1}{6} \times 4$ means 4 groups of $\frac{1}{6}$: $\frac{1\times4}{6} = \frac{4}{6}$
2. Simplify: $\frac{4}{6} = \frac{2}{3}$

$\frac{1}{6} \times 4 =$ ___

11. 12 rolls. She sold 12 rolls.

1. Unknown: the part.
2. Bar model: 18 split into 6 equal parts; take 4 of them.
3. One part: 18 ÷ 6 = 3
4. 4 parts: 3 × 4 = 12
5. Answer: She sold 12 rolls.

A baker made 18 rolls and sold $\frac{4}{6}$ of them by noon. How many rolls did she sell?

12. $\frac{3}{10}$

1. $\frac{1}{10} \times 3$ means 3 groups of $\frac{1}{10}$: $\frac{1\times3}{10} = \frac{3}{10}$

$\frac{1}{10} \times 3 =$ ___

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

Unit 7 Test: Decimals

School Launch · Grade 4 Math · Unit 7: Decimals · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. In 37.33, what is the value of the digit 3 after the decimal point? MEDIUM

2. Write $\frac{1}{10}$ as a decimal. HARD

3. In 38.72, what is the value of the digit 7 after the decimal point? MEDIUM

4. Write 0.76 as a fraction with denominator 100. MEDIUM

5. Write $\frac{1}{2}$ as a decimal. HARD

6. Write 0.2 as a fraction with denominator 10. MEDIUM

7. Write < or > : 4.94 ___ 33.2 MEDIUM

8. Write < or > : 4.09 ___ 85 HARD

9. Write < or > : 0.49 ___ 3.99 MEDIUM

10. \$39.19 − \$17.54 = ___ MEDIUM

11. At the market a loaf costs \$0.30 and a jar of honey costs \$0.63. How much do both cost? HARD

12. \$43.50 − \$34.53 = ___ MEDIUM

Answer Key · Unit 7 Test: Decimals

School Launch · Grade 4 Math · Unit 7: Decimals · Worksheet A · for the parent

Key

1. 0.3 ($\frac{3}{10}$)

1. The 3 is in the tenths place.
2. 3 tenths = $\frac{3}{10}$ = 0.3

In 37.33, what is the value of the digit 3 after the decimal point?

2. 0.1

1. $\frac{1}{10}$ is 1 tenths.
2. Tenths take 1 place after the point: $\frac{1}{10}$ = 0.1

Write $\frac{1}{10}$ as a decimal.

3. 0.7 ($\frac{7}{10}$)

1. The 7 is in the tenths place.
2. 7 tenths = $\frac{7}{10}$ = 0.7

In 38.72, what is the value of the digit 7 after the decimal point?

4. $\frac{76}{100}$

1. The last digit is in the hundredths place.
2. 0.76 = $\frac{76}{100}$

Write 0.76 as a fraction with denominator 100.

5. 0.5

1. Make the denominator 100: $\frac{1\times50}{2\times50}$ = $\frac{50}{100}$
2. $\frac{50}{100}$ = 0.50

Write $\frac{1}{2}$ as a decimal.

6. $\frac{2}{10}$

1. The last digit is in the tenths place.
2. 0.2 = $\frac{2}{10}$

Write 0.2 as a fraction with denominator 10.

7. 4.94 < 33.2

1. Line up the points and fill with zeros: 4.94 and 33.20.
2. Compare place by place from the left.
3. 4.94 < 33.2

Write < or > : 4.94 ___ 33.2

8. 4.09 < 85

1. Line up the points and fill with zeros: 4.09 and 85.00.
2. Compare place by place from the left.
3. 4.09 < 85

Write < or > : 4.09 ___ 85

9. 0.49 < 3.99

1. Line up the points and fill with zeros: 0.49 and 3.99.
2. Compare place by place from the left.
3. 0.49 < 3.99

Write < or > : 0.49 ___ 3.99

10. $21.65

1. Line up the decimal points. In cents: 3919 − 1754 = 2165
2. 2165 cents = $21.65

$39.19 − $17.54 = ___

11. $0.93. Both cost $0.93.

1. Work in cents: 30 + 63 = 93
2. 93 cents = $0.93

At the market a loaf costs $0.30 and a jar of honey costs $0.63. How much do both cost?

12. $8.97

1. Line up the decimal points. In cents: 4350 − 3453 = 897
2. 897 cents = $8.97

$43.50 − $34.53 = ___

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

Unit 8 Test: Measurement and Geometry

School Launch · Grade 4 Math · Unit 8: Measurement and Geometry · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. 216 inches = ___ yards MEDIUM

2. 7 pounds 8 ounces = ___ ounces HARD

3. 72 inches = ___ feet MEDIUM

4. 8,000 meters = ___ kilometers MEDIUM

5. A fence post is 8 feet tall. How many inches is that? HARD

6. 900 centimeters = ___ meters MEDIUM

7. Two angles together make a right angle. One is 39°. What is the other? MEDIUM

8. Two angles together make a straight line. One is 27°. What is the other? HARD

9. Two angles together make a right angle. One is 74°. What is the other? MEDIUM

10. A quadrilateral has exactly one pair of parallel sides. What is its most exact name? MEDIUM

11. A triangle has angles 49°, 112° and 19°. Is it acute, right or obtuse? HARD

12. A quadrilateral has four equal sides and four right angles. What is its most exact name? MEDIUM

Answer Key · Unit 8 Test: Measurement and Geometry

School Launch · Grade 4 Math · Unit 8: Measurement and Geometry · Worksheet A · for the parent

Key

1. 6

1. 1 yard = 36 inches, so divide by 36.
2. 216 ÷ 36 = 6

216 inches = ___ yards

2. 120

1. 1 pound = 16 ounces: 7 × 16 = 112
2. 112 + 8 = 120

7 pounds 8 ounces = ___ ounces

3. 6

1. 1 foot = 12 inches, so divide by 12.
2. 72 ÷ 12 = 6

72 inches = ___ feet

4. 8

1. 1 kilometer = 1,000 meters, so divide by 1,000.
2. 8,000 ÷ 1,000 = 8

8,000 meters = ___ kilometers

5. 96 inches. The post is 96 inches tall.

1. Unknown: the length in inches.
2. 1 foot = 12 inches.
3. 8 × 12 = 96
4. Answer: The post is 96 inches tall.

A fence post is 8 feet tall. How many inches is that?

6. 9

1. 1 meter = 100 centimeters, so divide by 100.
2. 900 ÷ 100 = 9

900 centimeters = ___ meters

7. 51°

1. A right angle is 90°.
2. 90 − 39 = 51

Two angles together make a right angle. One is 39°. What is the other?

8. 153°

1. A straight angle is 180°.
2. 180 − 27 = 153

Two angles together make a straight line. One is 27°. What is the other?

9. 16°

1. A right angle is 90°.
2. 90 − 74 = 16

Two angles together make a right angle. One is 74°. What is the other?

10. trapezoid

1. Exactly one pair of parallel sides: that is a trapezoid.

A quadrilateral has exactly one pair of parallel sides. What is its most exact name?

11. obtuse

1. Check: 49 + 112 + 19 = 180
2. One angle (112°) is more than 90°, so it is obtuse.

A triangle has angles 49°, 112° and 19°. Is it acute, right or obtuse?

12. square

1. Four equal sides and four right angles: that is a square.

A quadrilateral has four equal sides and four right angles. What is its most exact name?

Unit 9 Test: Chance, Comparison and Percent

School Launch · Grade 4 Math · Unit 9: Chance, Comparison and Percent · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 12

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

1. A farmer has 16 sheep and 4 goats. How many times as many sheep as goats? MEDIUM

2. A rope is 64 ft long. That is 8 times as long as a cord. How long is the cord? HARD

3. A farmer has 21 sheep and 3 goats. How many times as many sheep as goats? MEDIUM

4. A bag holds 7 yellow, 7 red, 3 blue marbles. You pick one without looking. Is picking a yellow marble impossible, unlikely, an even chance, likely or certain? MEDIUM

5. A bag holds 4 yellow, 6 green, 6 red marbles. You pick one without looking. What is the probability of picking yellow? Write it as a fraction. HARD

6. A bag holds 6 red, 5 blue marbles. You pick one without looking. Is picking a blue marble impossible, unlikely, an even chance, likely or certain? MEDIUM

7. A bag holds 3 green, 5 yellow, 6 red marbles. You pick one without looking. What is the probability of picking yellow? Write it as a fraction. MEDIUM

8. Daniel flipped a coin 25 times and got heads 14 times. What fraction of the tries gave heads? HARD

9. A bag holds 6 yellow, 4 blue, 5 red marbles. You pick one without looking. What is the probability of picking red? Write it as a fraction. MEDIUM

10. Write 95% as a fraction in simplest form. MEDIUM

11. Write 35% as a decimal. HARD

12. Write 90% as a fraction in simplest form. MEDIUM

Answer Key · Unit 9 Test: Chance, Comparison and Percent

School Launch · Grade 4 Math · Unit 9: Chance, Comparison and Percent · Worksheet A · for the parent

Key

1. 4 times as many

1. Ask: what times the smaller number makes the bigger one?
2. 4 × ___ = 16
3. 16 ÷ 4 = 4

A farmer has 16 sheep and 4 goats. How many times as many sheep as goats?

2. 8 ft

1. The rope is 8 copies of the cord.
2. 64 ÷ 8 = 8

A rope is 64 ft long. That is 8 times as long as a cord. How long is the cord?

3. 7 times as many

1. Ask: what times the smaller number makes the bigger one?
2. 3 × ___ = 21
3. 21 ÷ 3 = 7

A farmer has 21 sheep and 3 goats. How many times as many sheep as goats?

4. unlikely

1. There are 7 + 7 + 3 = 17 marbles.
2. 7 of the 17 are yellow.
3. So it is unlikely.

A bag holds 7 yellow, 7 red, 3 blue marbles. You pick one without looking. Is picking a yellow marble impossible, unlikely, an even chance, likely or certain?

5. $\frac{4}{16} = \frac{1}{4}$

1. Total marbles: 4 + 6 + 6 = 16
2. Yellow marbles: 4
3. Probability = 4 ÷ 16 = $\frac{4}{16}$
4. Simplify: $\frac{4}{16} = \frac{1}{4}$

A bag holds 4 yellow, 6 green, 6 red marbles. You pick one without looking. What is the probability of picking yellow? Write it as a fraction.

6. unlikely

1. There are 6 + 5 = 11 marbles.
2. 5 of the 11 are blue.
3. So it is unlikely.

A bag holds 6 red, 5 blue marbles. You pick one without looking. Is picking a blue marble impossible, unlikely, an even chance, likely or certain?

7. $\frac{5}{14}$

1. Total marbles: 3 + 5 + 6 = 14
2. Yellow marbles: 5
3. Probability = 5 ÷ 14 = $\frac{5}{14}$

A bag holds 3 green, 5 yellow, 6 red marbles. You pick one without looking. What is the probability of picking yellow? Write it as a fraction.

8. $\frac{14}{25}$

1. Tries: 25. Times with heads: 14.
2. Fraction = 14 ÷ 25 = $\frac{14}{25}$

Daniel flipped a coin 25 times and got heads 14 times. What fraction of the tries gave heads?

9. $\frac{5}{15} = \frac{1}{3}$

1. Total marbles: 6 + 4 + 5 = 15
2. Red marbles: 5
3. Probability = 5 ÷ 15 = $\frac{5}{15}$
4. Simplify: $\frac{5}{15} = \frac{1}{3}$

A bag holds 6 yellow, 4 blue, 5 red marbles. You pick one without looking. What is the probability of picking red? Write it as a fraction.

10. $\frac{19}{20}$

1. 95% = $\frac{95}{100}$
2. Divide top and bottom by 5: $\frac{95}{100} = \frac{19}{20}$

Write 95% as a fraction in simplest form.

11. 0.35

1. 35% means 35 hundredths: $\frac{35}{100}$.
2. 35 hundredths = 0.35

Write 35% as a decimal.

12. $\frac{9}{10}$

1. 90% = $\frac{90}{100}$
2. Divide top and bottom by 10: $\frac{90}{100} = \frac{9}{10}$

Write 90% as a fraction in simplest form.

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

Midterm Exam

School Launch · Grade 4 Math · Units 1–4 · Worksheet A

No calculator

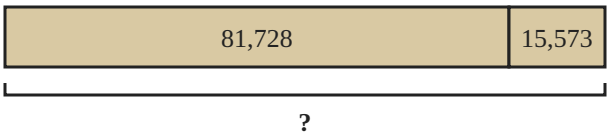
Name _____ Date _____ Score _____ / 16

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

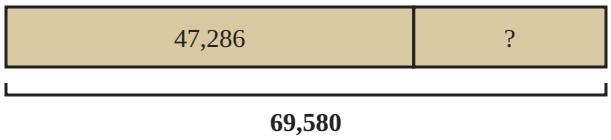
1. Write the number in digits: *five hundred ninety-three thousand nine hundred sixty-nine* HARD

2. Round 795,866 to the nearest 10,000. HARD

3. There are 81,728 ducks on the pond and 15,573 more fly in. How many ducks are on the pond now? HARD

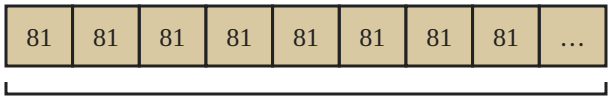


4. A blacksmith had 69,580 nails. He used 47,286 to shoe the horses. How many nails are left? HARD



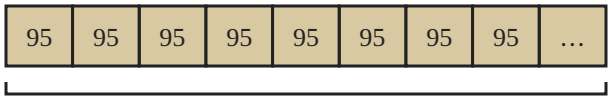
5. 7 × 4,000 = ___ HARD

6. A crate holds 81 eggs. How many eggs fill 14 crates? HARD

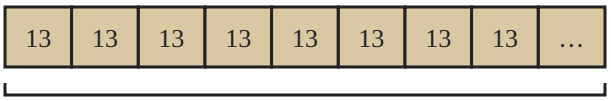


7. 3 × 1,596 = ___ HARD

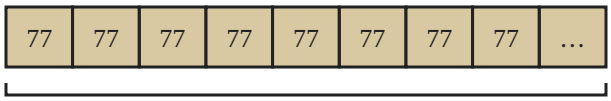
8. There are 39 rows in the garden with 95 cabbages in each row. How many cabbages are there? HARD



9. A crate holds 13 eggs. How many eggs fill 36 crates? HARD



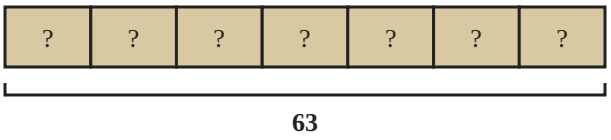
10. A cobbler makes 77 pairs of shoes a day. How many pairs does he make in 76 days? HARD



11. Is 28 prime or composite? HARD

12. A merchant buys 8 jars of oil at 34 coins each. He also pays 121 coins in tax. How many coins does he spend in all? HARD

13. The twelve tribes of Israel shared the land. If 63 sheep were split equally among 7 families, how many sheep did each family get? HARD



14. 131 ÷ 6 = ___ HARD

15. 6,033 ÷ 4 = ___ HARD

16. 60 people need rides to church. Each wagon holds 8. How many wagons are needed so everyone rides? HARD

Answer Key · Midterm Exam

School Launch · Grade 4 Math · Units 1–4 · Worksheet A · for the parent

Key

1. 593,969

1. Read it in groups: five hundred ninety-three thousand nine hundred sixty-nine → 593,969

Write the number in digits: *five hundred ninety-three thousand nine hundred sixty-nine*

2. 800,000

1. 795,866 is between 790,000 and 800,000.
2. Look at the thousands digit: 5. 5 or more, so round up.
3. 795,866 rounds to 800,000.

Round 795,866 to the nearest 10,000.

3. 97,301 ducks. There are 97,301 ducks now.

1. Unknown: the total.
2. Bar model: two parts, 81,728 and 15,573; the whole is unknown.
3. Equation: 81,728 + 15,573 = ?
4. 81,728 + 15,573 = 97,301
5. Answer: There are 97,301 ducks now.

There are 81,728 ducks on the pond and 15,573 more fly in. How many ducks are on the pond now?

4. 22,294 nails. 22,294 nails are left.

1. Unknown: how many are left.
2. Bar model: the whole is 69,580; one part is 47,286; the other part is unknown.
3. Equation: 69,580 − 47,286 = ?
4. 69,580 − 47,286 = 22,294
5. Answer: 22,294 nails are left.

A blacksmith had 69,580 nails. He used 47,286 to shoe the horses. How many nails are left?

5. 28,000

1. 4,000 = 4 × 1,000
2. 7 × 4 = 28
3. 28 × 1,000 = 28,000

7 × 4,000 = ___

6. 1,134 eggs. 14 crates hold 1,134 eggs.

1. Unknown: the total.
2. Bar model: 14 equal parts of 81; the whole is unknown.
3. Equation: 14 × 81 = ?
4. 14 × 81 = 1,134
5. Answer: 14 crates hold 1,134 eggs.

A crate holds 81 eggs. How many eggs fill 14 crates?

7. 4,788

1. Multiply 3 by each digit of 1,596, starting with the ones.
2. 3 × 6 = 18
3. 3 × 90 = 270 (start this row with 1 zero as a placeholder)
4. 3 × 500 = 1,500 (start this row with 2 zeros as a placeholder)
5. 3 × 1,000 = 3,000 (start this row with 3 zeros as a placeholder)
6. Add the rows: 18 + 270 + 1,500 + 3,000 = 4,788

3 × 1,596 = ___

8. 3,705 cabbages. There are 3,705 cabbages.

1. Unknown: the total.
2. Bar model: 39 equal parts of 95; the whole is unknown.
3. Equation: 39 × 95 = ?
4. 39 × 95 = 3,705
5. Answer: There are 3,705 cabbages.

There are 39 rows in the garden with 95 cabbages in each row. How many cabbages are there?

9. 468 eggs. 36 crates hold 468 eggs.

1. Unknown: the total.
2. Bar model: 36 equal parts of 13; the whole is unknown.
3. Equation: 36 × 13 = ?
4. 36 × 13 = 468
5. Answer: 36 crates hold 468 eggs.

A crate holds 13 eggs. How many eggs fill 36 crates?

10. 5,852 pairs. He makes 5,852 pairs.

1. Unknown: the total.
2. Bar model: 76 equal parts of 77; the whole is unknown.
3. Equation: 76 × 77 = ?
4. 76 × 77 = 5,852
5. Answer: He makes 5,852 pairs.

A cobbler makes 77 pairs of shoes a day. How many pairs does he make in 76 days?

11. composite

1. 2 × 14 = 28, so 28 has more than two factors.
2. 28 is composite.

Is 28 prime or composite?

12. 393 coins. He spends 393 coins.

1. Unknown: the final amount.
2. Two steps: first find the total of the equal groups, then add the extra.
3. Cost of the jars: 8 × 34 = 272
4. Add the tax: 272 + 121 = 393
5. Answer: He spends 393 coins.

A merchant buys 8 jars of oil at 34 coins each. He also pays 121 coins in tax. How many coins does he spend in all?

13. 9 sheep. Each family got 9 sheep.

1. Unknown: the size of each group.
2. Bar model: the whole is 63, cut into 7 equal parts.
3. Equation: 63 ÷ 7 = ?
4. 63 ÷ 7 = 9
5. Answer: Each family got 9 sheep.

The twelve tribes of Israel shared the land. If 63 sheep were split equally among 7 families, how many sheep did each family get?

14. 21 R 5

1. How many 6s in 13? 2. 6 × 2 = 12. 13 − 12 = 1. Bring down the 1.
2. How many 6s in 11? 1. 6 × 1 = 6. 11 − 6 = 5.
3. Check: 6 × 21 + 5 = 131

131 ÷ 6 = ___

15. 1,508 R 1

1. How many 4s in 6? 1. 4 × 1 = 4. 6 − 4 = 2. Bring down the 0.
2. How many 4s in 20? 5. 4 × 5 = 20. 20 − 20 = 0. Bring down the 3.
3. How many 4s in 3? 0. 4 × 0 = 0. 3 − 0 = 3. Bring down the 3.
4. How many 4s in 33? 8. 4 × 8 = 32. 33 − 32 = 1.
5. Check: 4 × 1,508 + 1 = 6,033

6,033 ÷ 4 = ___

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

16. 8

1. 60 ÷ 8: 8 × 7 = 56, and 60 − 56 = 4. So 60 ÷ 8 is 7 R 4.
2. 7 full wagons leave 4 people behind, so one more wagon is needed: 7 + 1 = 8.

60 people need rides to church. Each wagon holds 8. How many wagons are needed so everyone rides?

End-of-Year Exam

School Launch · Grade 4 Math · Units 1–8 · Worksheet A

No calculator

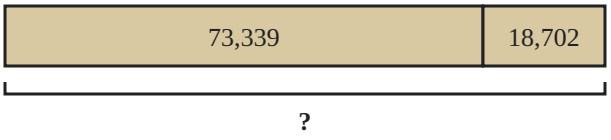
Name _____ Date _____ Score _____ / 24

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, draw a bar model if it helps, write the equation, solve, and answer in a sentence with units.

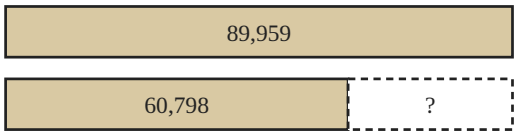
1. Write the number in digits: *nine hundred thirty-six thousand five hundred seventy-seven* HARD

2. Round 631,132 to the nearest 10,000. HARD

3. A carpenter cut 73,339 boards on Monday and 18,702 boards on Tuesday. How many boards did he cut? HARD

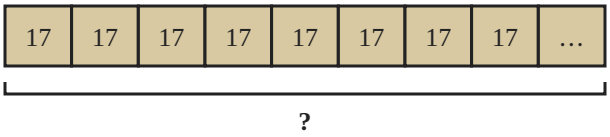


4. The oak is 89,959 feet tall. The apple tree is 60,798 feet tall. How much taller is the oak? HARD



5. 4 × 2,000 = ___ HARD

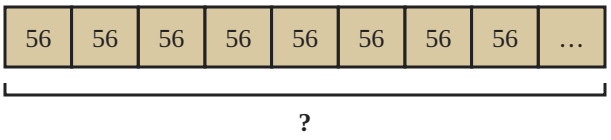
6. There are 22 rows in the garden with 17 cabbages in each row. How many cabbages are there? HARD



7. 8 × 9,059 = ___ HARD

8. A pound of nails costs $1.06. How much do 4 pounds cost? HARD

9. A wagon wheel has 56 spokes. How many spokes are on 51 wheels? HARD

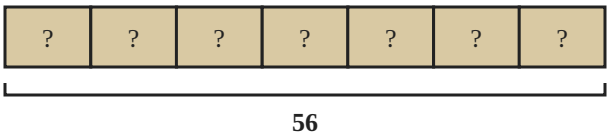


10. A pound of nails costs $1.30. How much do 2 pounds cost? HARD

11. Is 21 prime or composite? HARD

12. A merchant buys 35 jars of oil at 22 coins each. He also pays 681 coins in tax. How many coins does he spend in all? HARD

13. 56 apples are shared equally among 7 baskets. How many apples go in each basket? HARD



14. 973 ÷ 6 = ___ HARD

15. 8,641 ÷ 8 = ___ HARD

16. 29 apples are shared equally into 6 baskets. How many apples are left over? HARD

17. Fill in the missing number: $\frac{5}{10} = \frac{?}{20}$ HARD

18. Write < or > : $\frac{1}{2}$ ___ $\frac{1}{10}$ HARD

19. Write $\frac{7}{6}$ as a mixed number. HARD

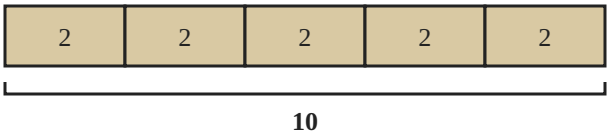
20. Write $\frac{9}{15}$ in simplest form. HARD

21. A carpenter planed $\frac{1}{3}$ inch off one board and $\frac{2}{3}$ inch off another. How much did he plane off in all? HARD

22. A rope is $\frac{2}{3}$ yard long. Peter cuts off $\frac{1}{3}$ yard. How long is the rope now? HARD

23. $2\frac{3}{8} - \frac{5}{8} =$ ___ HARD

24. There are 10 sheep in the flock. $\frac{3}{5}$ of them are lambs. How many lambs are there? HARD



10

Answer Key · End-of-Year Exam

School Launch · Grade 4 Math · Units 1–8 · Worksheet A · for the parent

Key

1. 936,577

1. Read it in groups: nine hundred thirty-six thousand five hundred seventy-seven → 936,577

Write the number in digits: *nine hundred thirty-six thousand five hundred seventy-seven*

2. 630,000

1. 631,132 is between 630,000 and 640,000.
2. Look at the thousands digit: 1. Less than 5, so round down.
3. 631,132 rounds to 630,000.

Round 631,132 to the nearest 10,000.

3. 92,041 boards. He cut 92,041 boards.

1. Unknown: the total.
2. Bar model: two parts, 73,339 and 18,702; the whole is unknown.
3. Equation: 73,339 + 18,702 = ?
4. 73,339 + 18,702 = 92,041
5. Answer: He cut 92,041 boards.

A carpenter cut 73,339 boards on Monday and 18,702 boards on Tuesday. How many boards did he cut?

4. 29,161 feet. The oak is 29,161 feet taller.

1. Unknown: the difference.
2. Bar model: a long bar of 89,959 and a short bar of 60,798; the difference is unknown.
3. Equation: 89,959 − 60,798 = ?
4. 89,959 − 60,798 = 29,161
5. Answer: The oak is 29,161 feet taller.

The oak is 89,959 feet tall. The apple tree is 60,798 feet tall. How much taller is the oak?

5. 8,000

1. 2,000 = 2 × 1,000
2. 4 × 2 = 8
3. 8 × 1,000 = 8,000

4 × 2,000 = ___

6. 374 cabbages. There are 374 cabbages.

1. Unknown: the total.
2. Bar model: 22 equal parts of 17; the whole is unknown.
3. Equation: 22 × 17 = ?
4. 22 × 17 = 374
5. Answer: There are 374 cabbages.

There are 22 rows in the garden with 17 cabbages in each row. How many cabbages are there?

7. 72,472

1. Multiply 8 by each digit of 9,059, starting with the ones.
2. 8 × 9 = 72
3. 8 × 50 = 400 (start this row with 1 zero as a placeholder)
4. 8 × 0 = 0 (start this row with 2 zeros as a placeholder)
5. 8 × 9,000 = 72,000 (start this row with 3 zeros as a placeholder)
6. Add the rows: 72 + 400 + 0 + 72,000 = 72,472

8 × 9,059 = ___

8. $4.24. 4 pounds cost $4.24.

1. Work in cents: 106 × 4 = 424
2. 424 cents = $4.24

A pound of nails costs $1.06. How much do 4 pounds cost?

9. 2,856 spokes. 51 wheels have 2,856 spokes.

1. Unknown: the total.
2. Bar model: 51 equal parts of 56; the whole is unknown.
3. Equation: 51 × 56 = ?
4. 51 × 56 = 2,856
5. Answer: 51 wheels have 2,856 spokes.

A wagon wheel has 56 spokes. How many spokes are on 51 wheels?

10. $2.60. 2 pounds cost $2.60.

1. Work in cents: 130 × 2 = 260
2. 260 cents = $2.60

A pound of nails costs $1.30. How much do 2 pounds cost?

11. composite

1. 3 × 7 = 21, so 21 has more than two factors.
2. 21 is composite.

Is 21 prime or composite?

12. 1,451 coins. He spends 1,451 coins.

1. Unknown: the final amount.
2. Two steps: first find the total of the equal groups, then add the extra.
3. Cost of the jars: 35 × 22 = 770
4. Add the tax: 770 + 681 = 1451
5. Answer: He spends 1,451 coins.

A merchant buys 35 jars of oil at 22 coins each. He also pays 681 coins in tax. How many coins does he spend in all?

13. 8 apples. Each basket gets 8 apples.

1. Unknown: the size of each group.
2. Bar model: the whole is 56, cut into 7 equal parts.
3. Equation: 56 ÷ 7 = ?
4. 56 ÷ 7 = 8
5. Answer: Each basket gets 8 apples.

56 apples are shared equally among 7 baskets. How many apples go in each basket?

14. 162 R 1

1. How many 6s in 9? 1. 6 × 1 = 6. 9 − 6 = 3. Bring down the 7.
2. How many 6s in 37? 6. 6 × 6 = 36. 37 − 36 = 1. Bring down the 3.
3. How many 6s in 13? 2. 6 × 2 = 12. 13 − 12 = 1.
4. Check: 6 × 162 + 1 = 973

973 ÷ 6 = ___

15. 1,080 R 1

1. How many 8s in 8? 1. 8 × 1 = 8. 8 − 8 = 0. Bring down the 6.
2. How many 8s in 6? 0. 8 × 0 = 0. 6 − 0 = 6. Bring down the 4.
3. How many 8s in 64? 8. 8 × 8 = 64. 64 − 64 = 0. Bring down the 1.
4. How many 8s in 1? 0. 8 × 0 = 0. 1 − 0 = 1.
5. Check: 8 × 1,080 + 1 = 8,641

8,641 ÷ 8 = ___

16. 5

1. 29 ÷ 6: 6 × 4 = 24, and 29 − 24 = 5. So 29 ÷ 6 is 4 R 5.
2. The question asks for what is left over, which is the remainder: 5.

29 apples are shared equally into 6 baskets. How many apples are left over?

Every answer was recomputed by an independent checker from the problem data, and every equation in the steps was evaluated.

17. 10

1. The denominator went from 10 to 20: $10 \times 2 = 20$.
2. Multiply the numerator by 2 too: $5 \times 2 = 10$
3. $\frac{5}{10} = \frac{10}{20}$

Fill in the missing number: $\frac{5}{10} = \frac{?}{20}$

---

18. $\frac{1}{2} > \frac{1}{10}$

1. Both have 1 part. Fewer cuts make bigger parts, so the smaller denominator wins.
2. $\frac{1}{2} > \frac{1}{10}$

Write < or > : $\frac{1}{2}$ ___ $\frac{1}{10}$

---

19. $1\frac{1}{6}$

1. $7 \div 6$: $6 \times 1 = 6$, and $7 - 6 = 1$
2. 1 wholes and 1 sixth left over: $1\frac{1}{6}$

Write $\frac{7}{6}$ as a mixed number.

---

20. $\frac{3}{5}$

1. The greatest common factor of 9 and 15 is 3.
2. $9 \div 3 = 3$ and $15 \div 3 = 5$
3. $\frac{9}{15} = \frac{3}{5}$

Write $\frac{9}{15}$ in simplest form.

---

21. 1 inch. He planed off 1 inch in all.

1. Unknown: the total.
2. $\frac{1}{3} + \frac{2}{3} = \frac{3}{3} = 1$
3. Answer: He planed off 1 inch in all.

A carpenter planed $\frac{1}{3}$ inch off one board and $\frac{2}{3}$ inch off another. How much did he plane off in all?

---

22. $\frac{1}{3}$ yard. The rope is $\frac{1}{3}$ yard long now.

1. Unknown: how much is left.
2. $\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$
3. Answer: The rope is $\frac{1}{3}$ yard long now.

A rope is $\frac{2}{3}$ yard long. Peter cuts off $\frac{1}{3}$ yard. How long is the rope now?

---

23. $1\frac{3}{4}$

1. $\frac{3}{8}$ is less than $\frac{5}{8}$, so regroup 1 whole as $\frac{8}{8}$: 2 and $\frac{3}{8}$ becomes 1 and $\frac{11}{8}$.
2. Whole numbers: $1 - 0 = 1$
3. Fractions: $\frac{11}{8} - \frac{5}{8} = \frac{6}{8}$
4. Simplify: $\frac{6}{8} = \frac{3}{4}$, so the answer is $1\frac{3}{4}$

$2\frac{3}{8} - \frac{5}{8} =$ ___

---

24. 6 lambs. There are 6 lambs.

1. Unknown: the part.
2. Bar model: 10 split into 5 equal parts; take 3 of them.
3. One part: $10 \div 5 = 2$
4. 3 parts: $2 \times 3 = 6$
5. Answer: There are 6 lambs.

There are 10 sheep in the flock. $\frac{3}{5}$ of them are lambs. How many lambs are there?
