Year 6

Parents' Practice and Revision

Arithmetic Activity Booklet

Pack Contents

Information and Guidance for Parents

Welcome to the Twinkl SATs Revision and Practice Guide for Arithmetic. This pack is intended to help you understand the KS2 Arithmetic test and to practise key arithmetic questions similar to those that may come up in the tests.

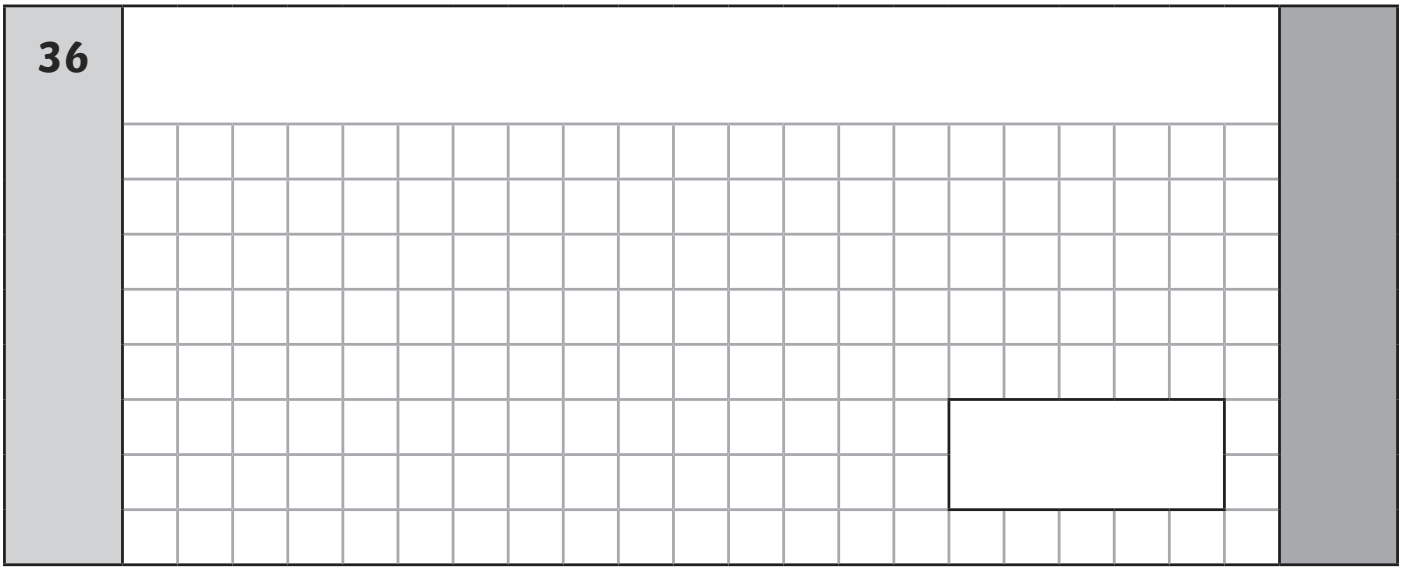
The KS2 Arithmetic Test

Children are asked to answer 36 questions in thirty minutes for the KS2 arithmetic test. The questions cover areas of the mathematics national curriculum (2014) that would be regarded as arithmetic. The curriculum can be found at:

https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study

The national curriculum is expected to be taught over the four years of Key Stage 2. Therefore the questions in the test are based on all the arithmetic objectives from the KS2 national curriculum (and not just what they learn in Year 6).

The questions are each written with a grid beneath for the children to write any working out, and an answer box in the bottom right. Most of the grids are this size, but those for the formal methods with larger numbers are slightly bigger. Here is an example of the grid. The larger one has 12 rows.

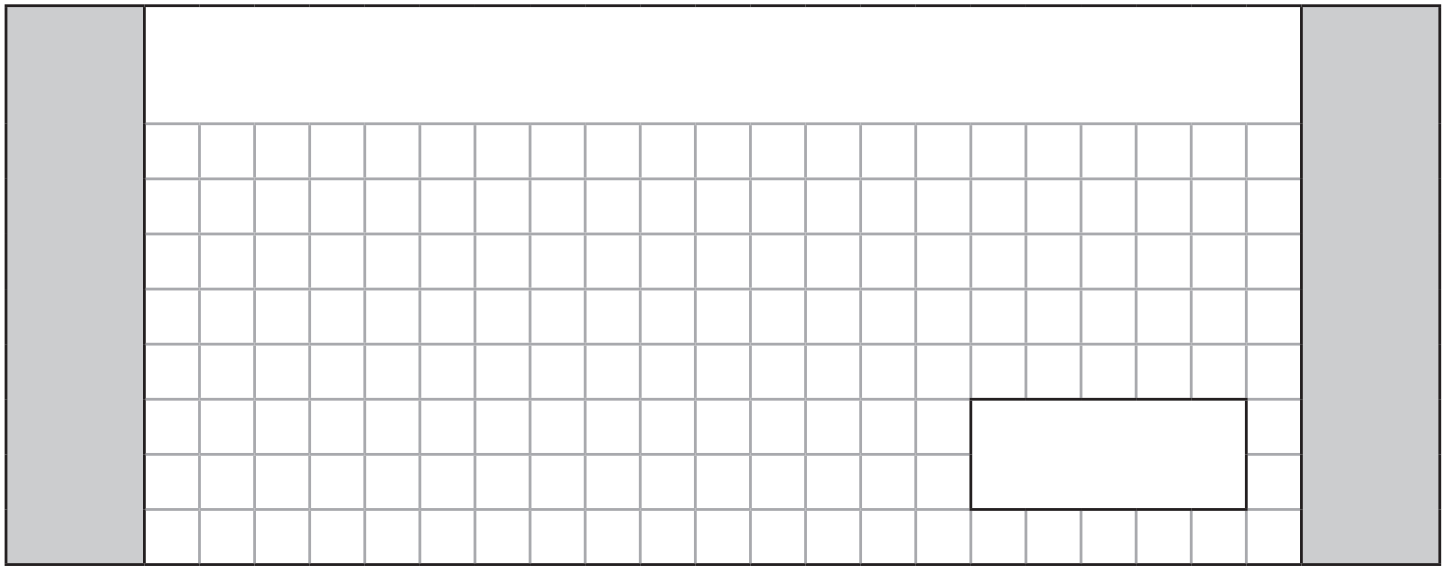


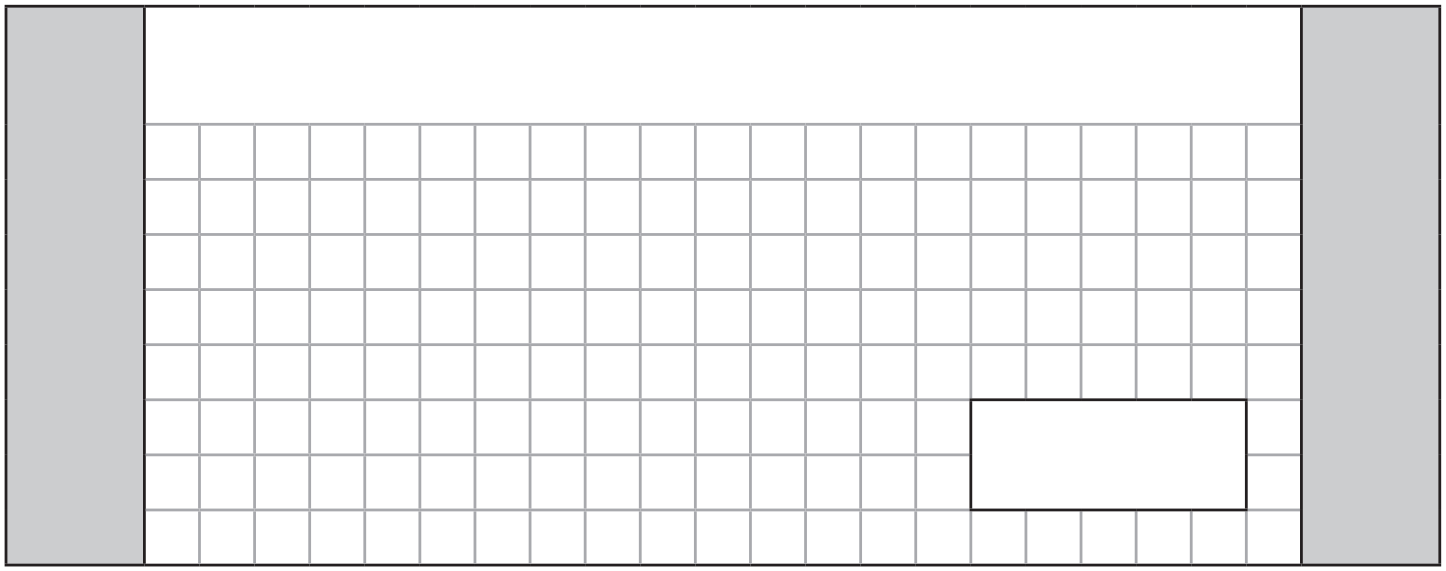
Many other areas of the mathematics curriculum are tested in the reasoning papers.

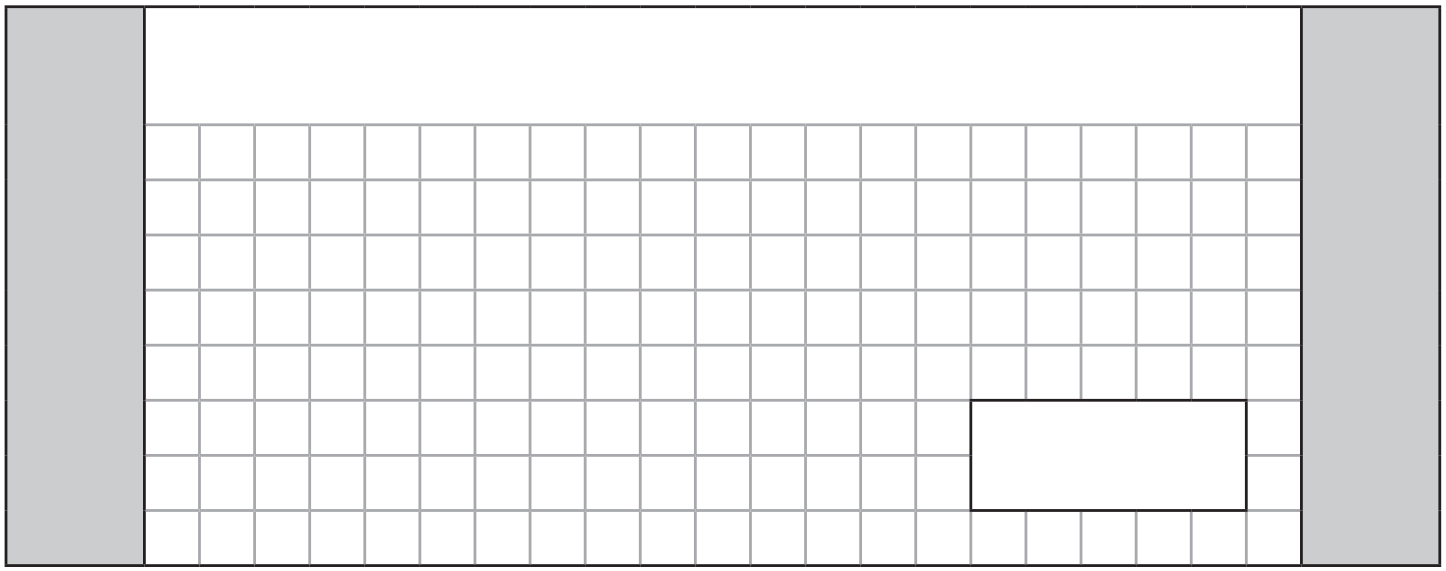
How to use this pack

This arithmetic pack has broken down the statutory requirements of the KS2 national curriculum covered in the arithmetic tests into five quizzes, each one consisting of a number of questions. Each quiz contains the answers and any relevant explanation of which national curriculum arithmetic requirement is being tested.

- Use each quiz with your child during the weeks building up to the KS2 SATs tests.
- Together, mark the quiz using the answer sheet and identify any questions on the quiz your child struggled with. They may need further support in this area to learn that individual arithmetic method or concept. If there are any arithmetic questions your child struggles with, use the Twinkl website to find resources to support your child with that arithmetic method or concept.
- Use the blank sheets to write similar questions to those in the quizzes.







Year 6 Arithmetic Quiz 1

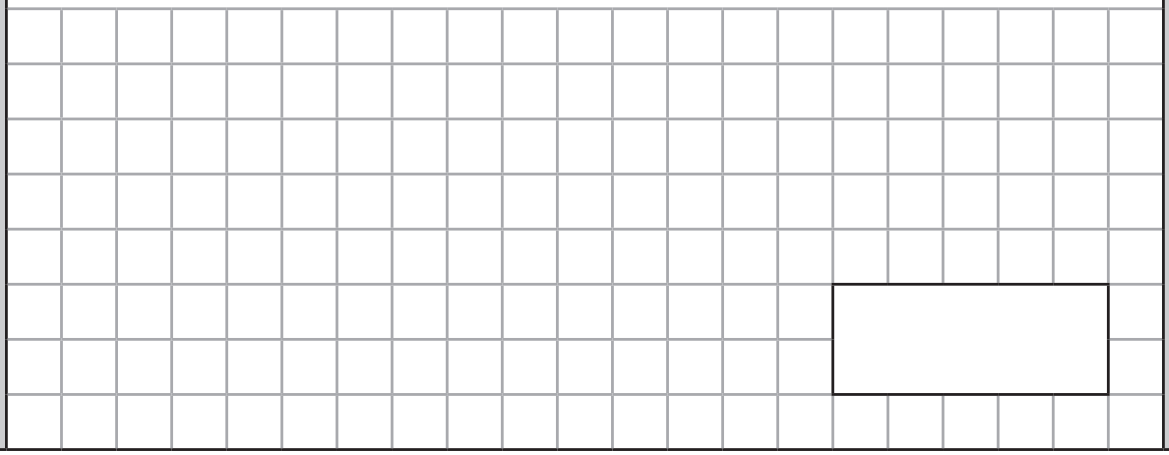
Add and subtract 10 and 100.

1 55 + 10 =

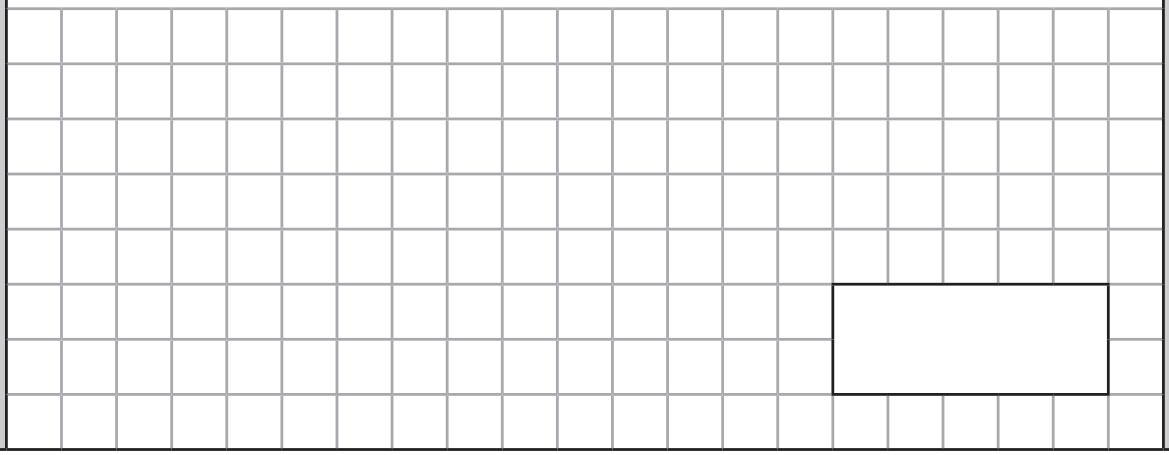
2 27 + 10 =

3 91 + 10 =

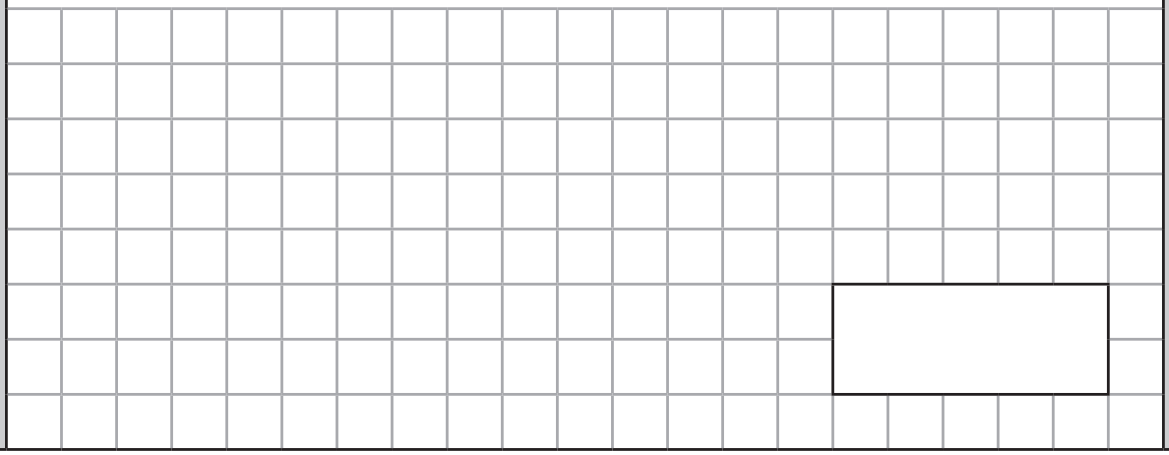
4 306 + 100 =



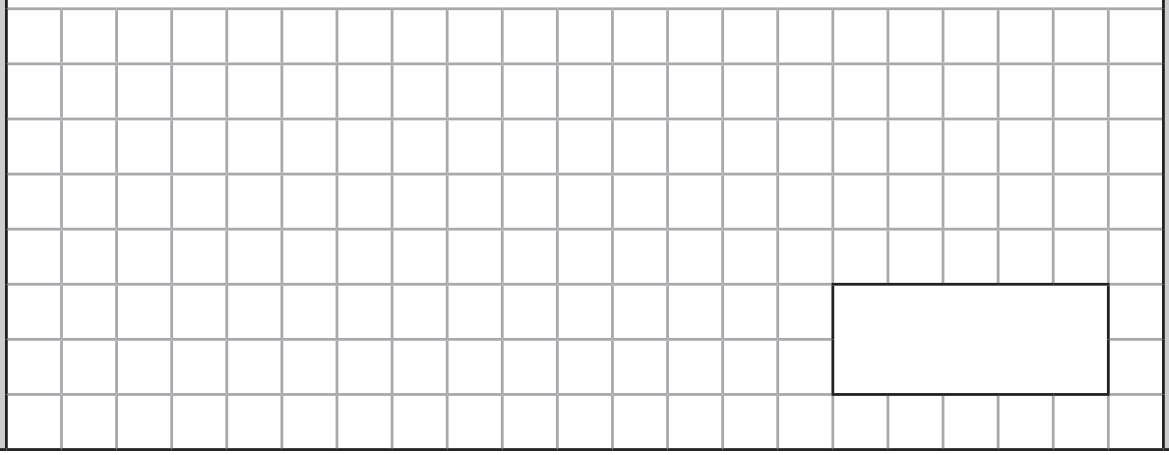
5 561 + 100 =



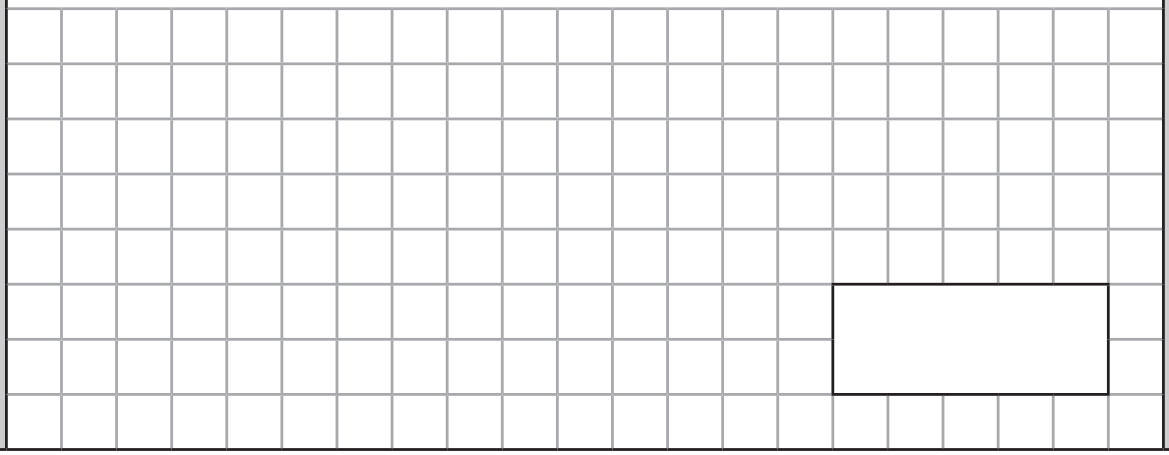
6 924 + 100 =



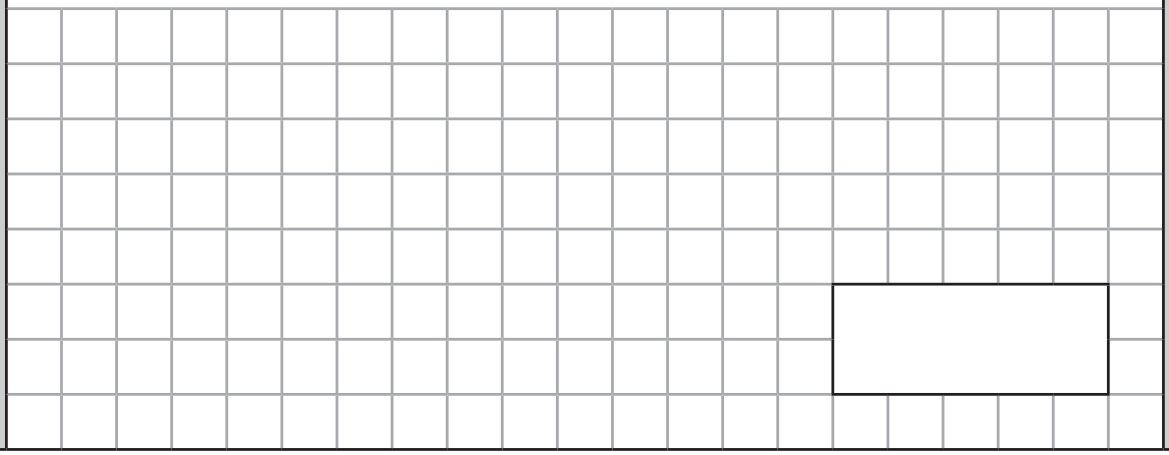
7 59 – 10 =



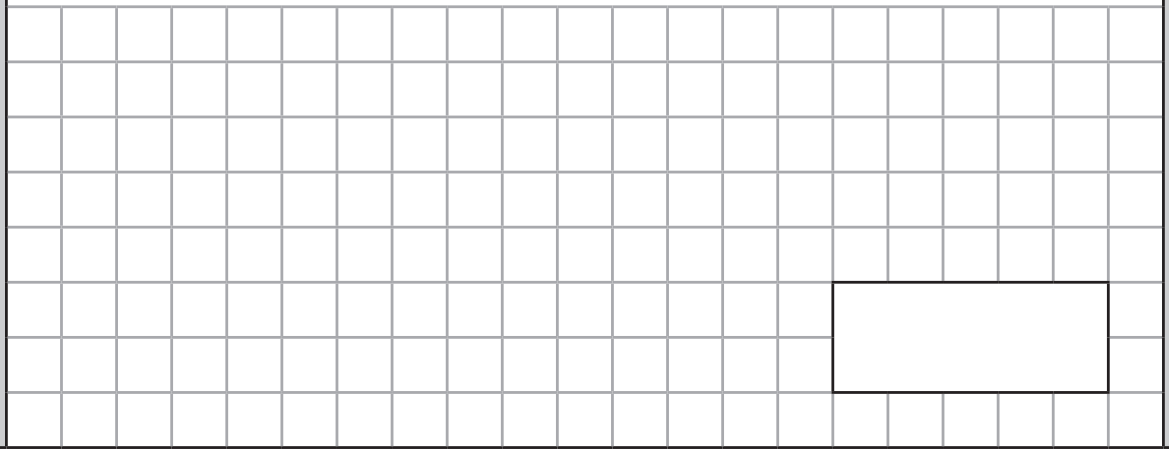
8 25 – 10 =



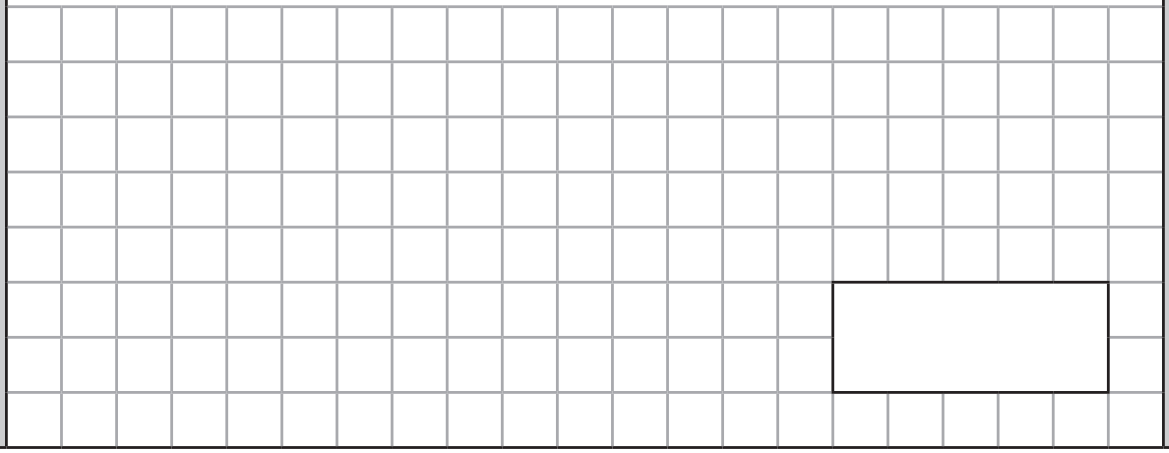
9 103 – 10 =



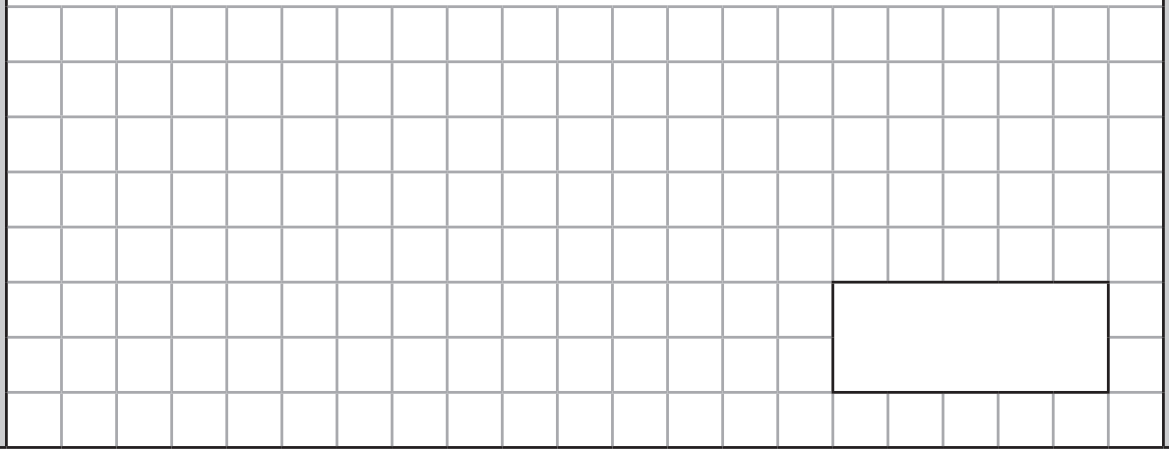
10 582 – 100 =



11 1067 – 100 =

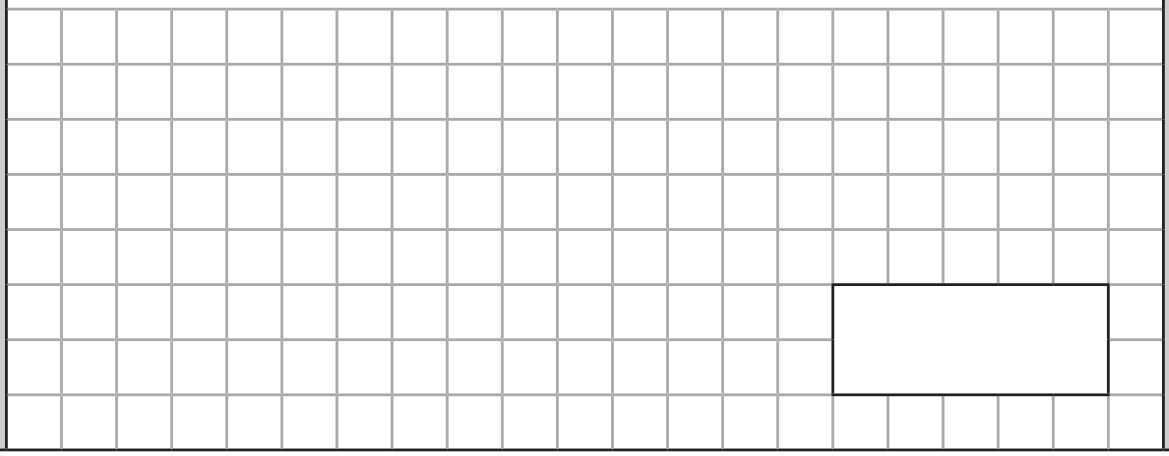


12 182 – 100 =

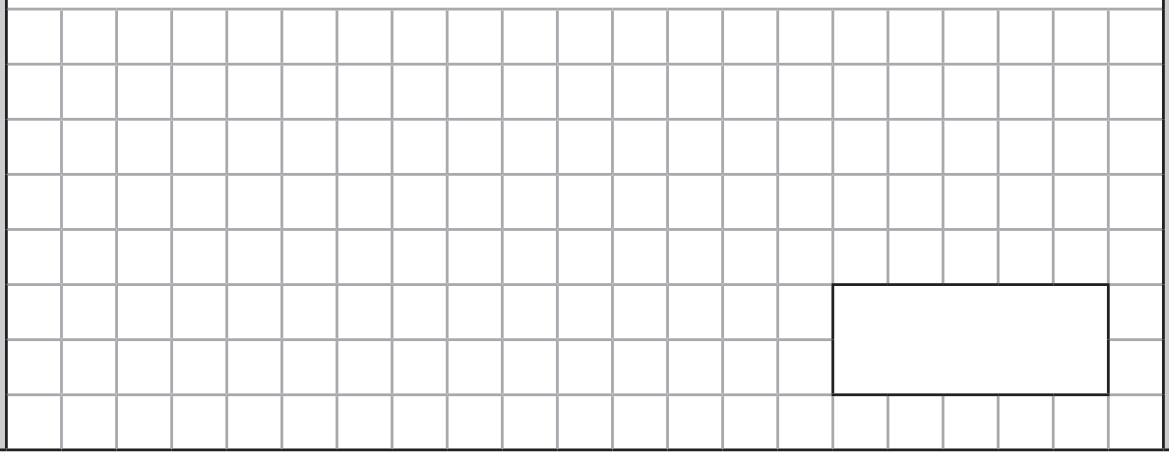


Adding and subtracting three-digit numbers and ones, tens and hundreds.

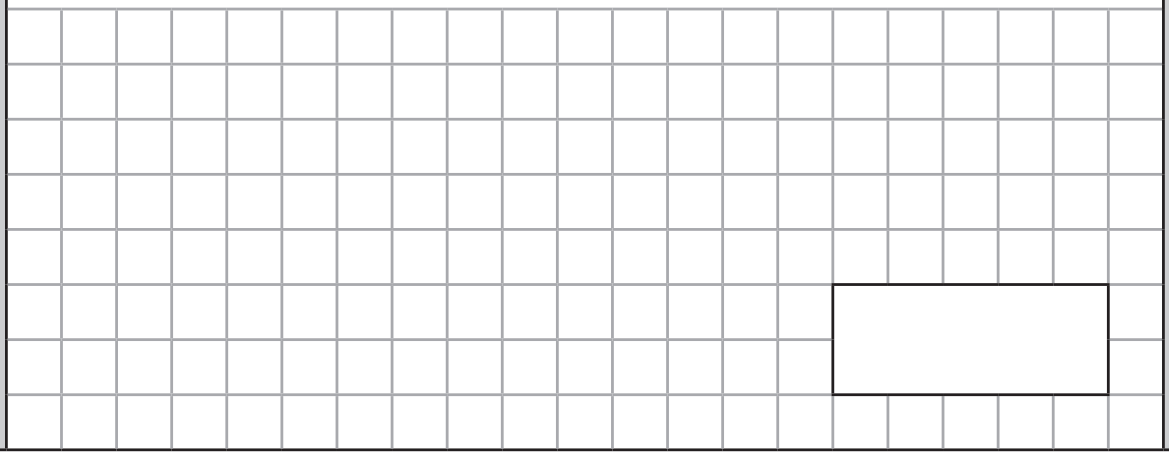
13 719 + 6 =



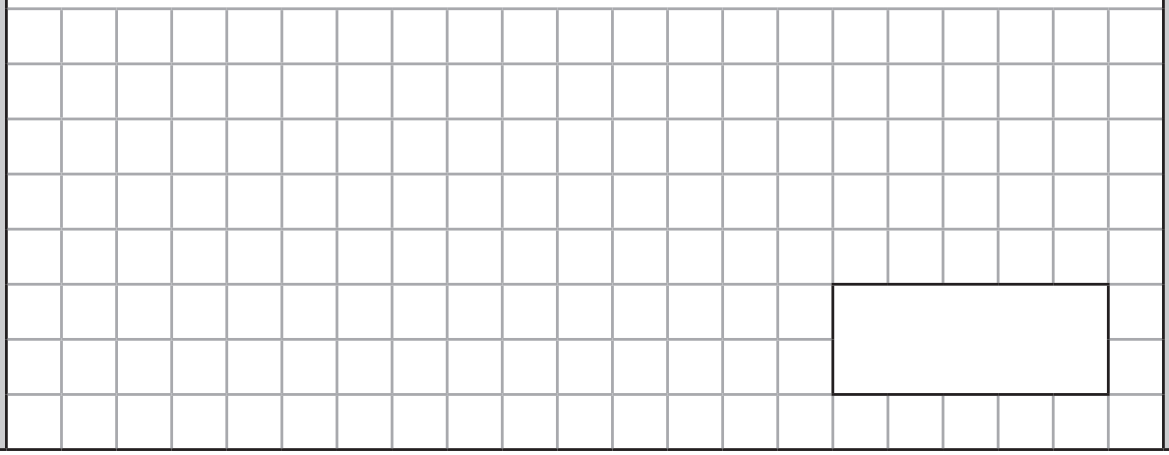
14 997 + 4 =



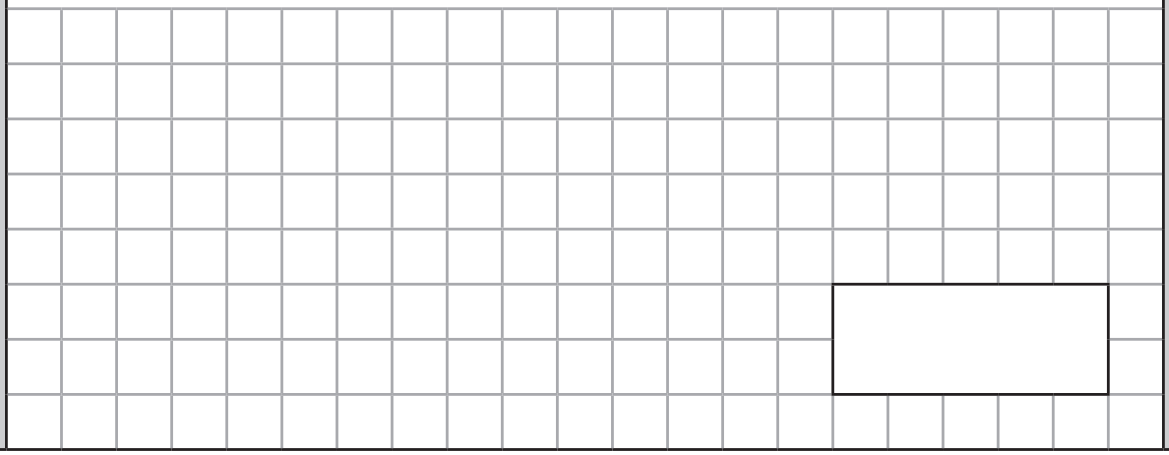
15 350 – 9 =



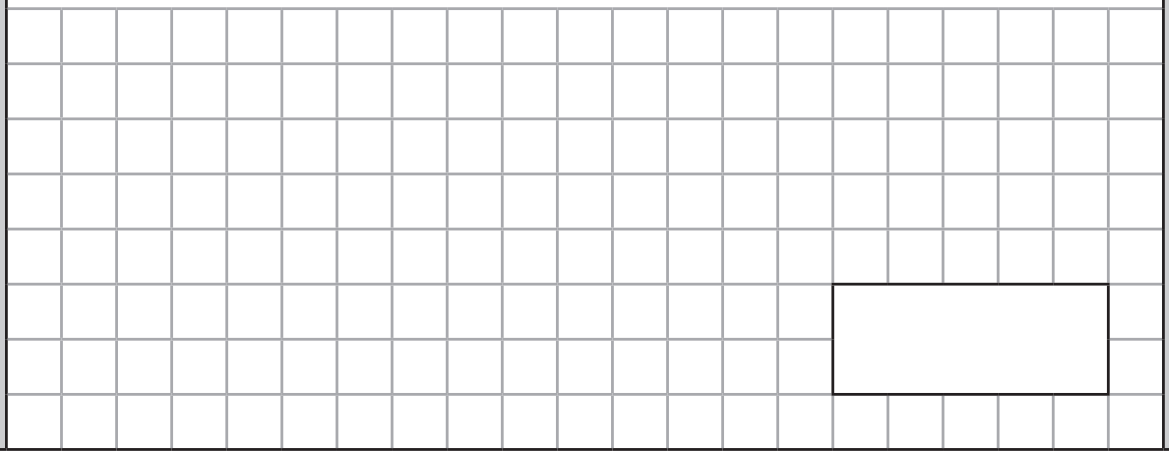
16 818 − 7 =



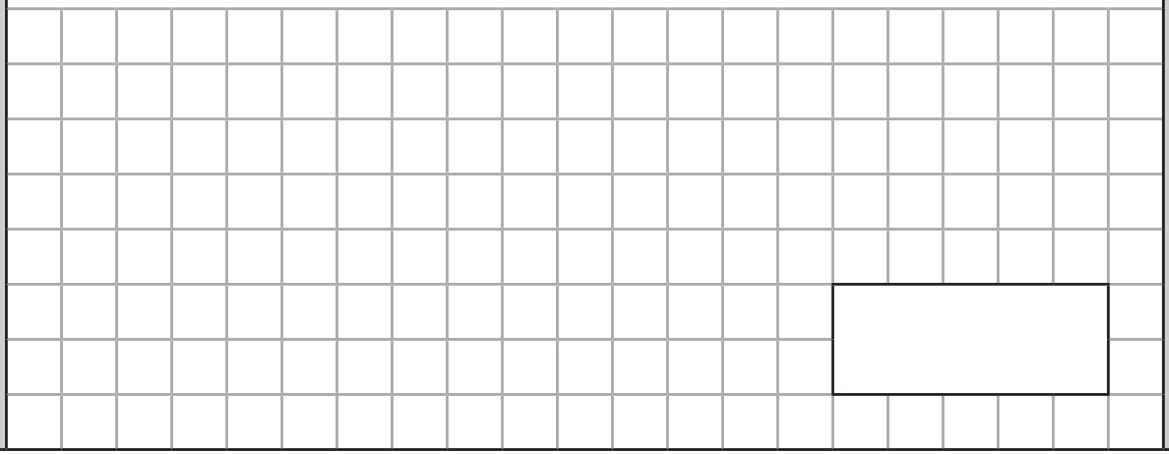
17 902 + 20 =



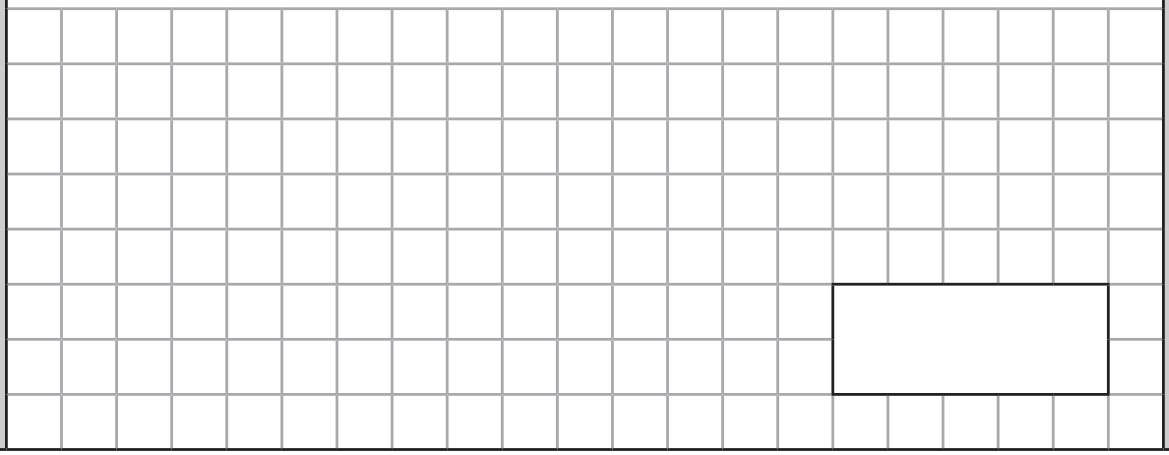
18 482 + 70 =



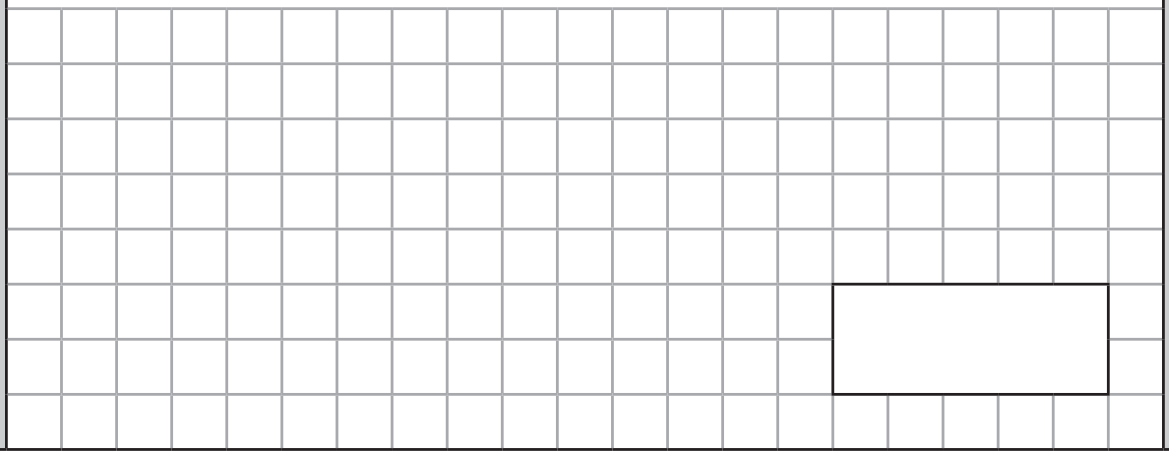
19 683 − 30 =



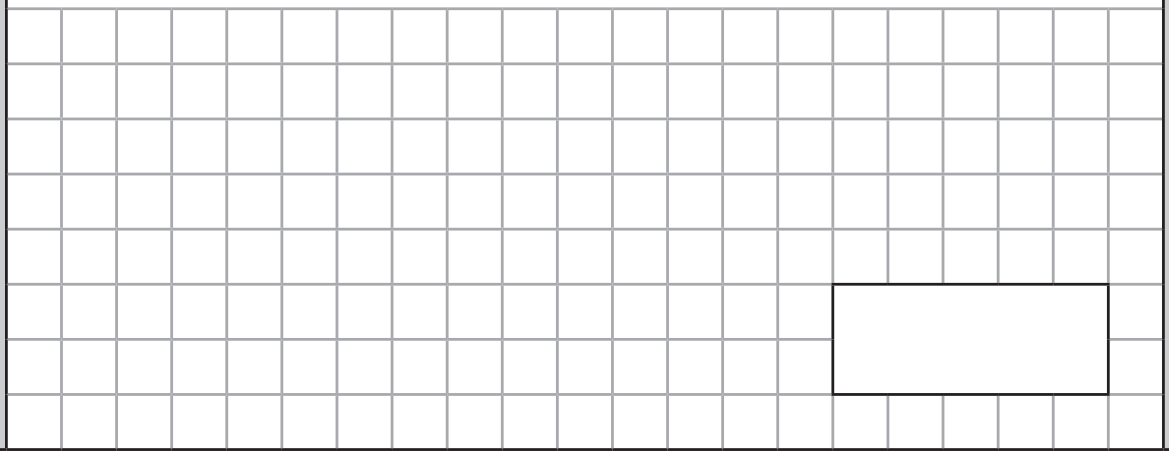
20 417 − 60 =



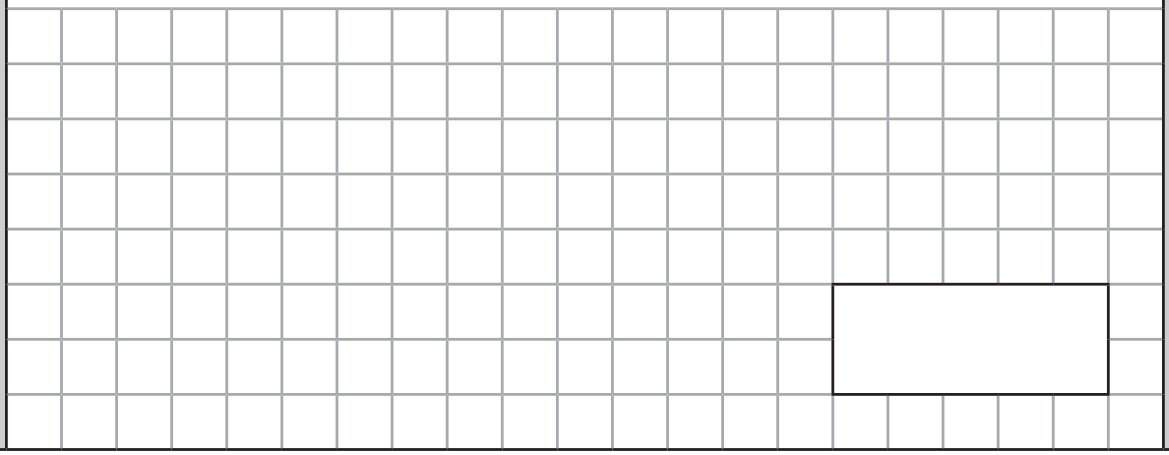
21 369 + 500 =



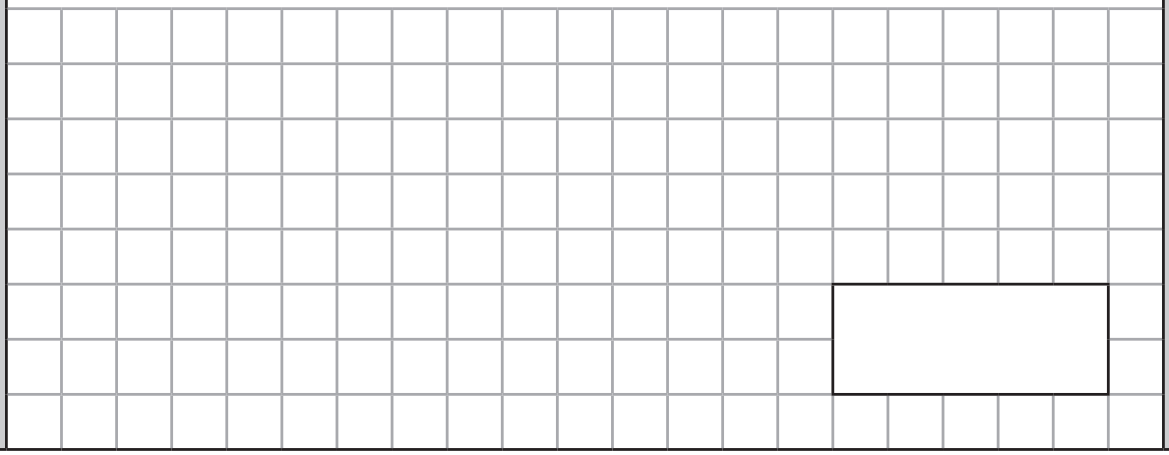
22 837 + 400 =



23 299 – 200 =

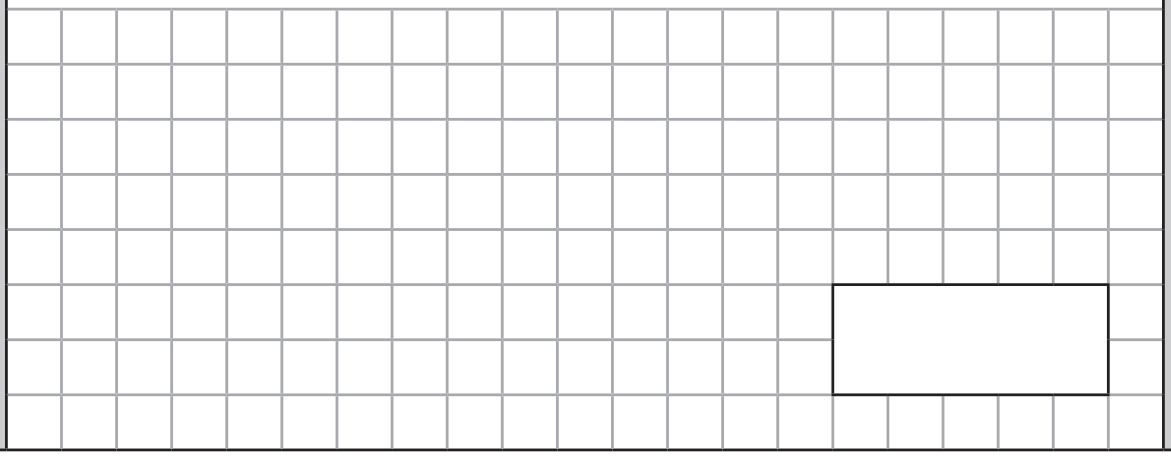


24 1007 – 500 =

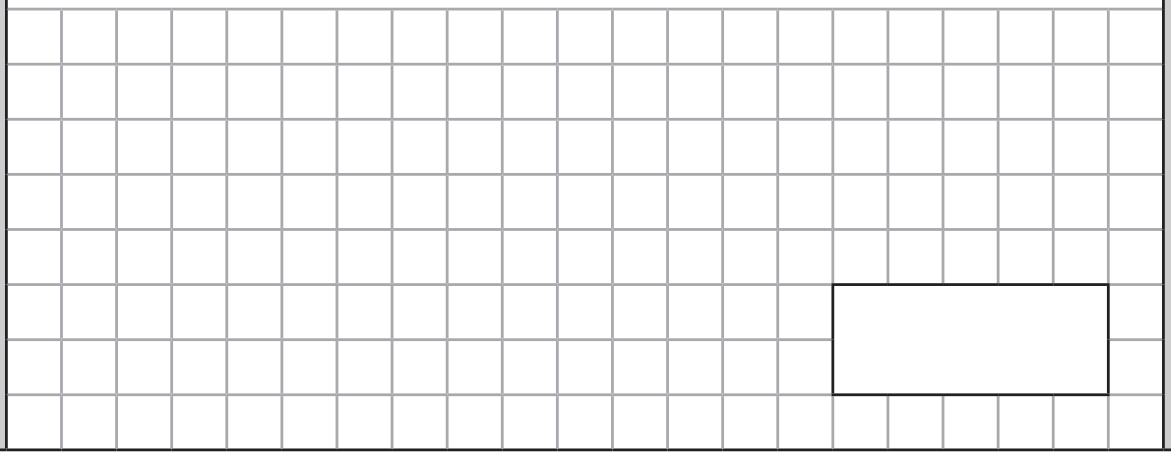


Recall and use multiplication tables.

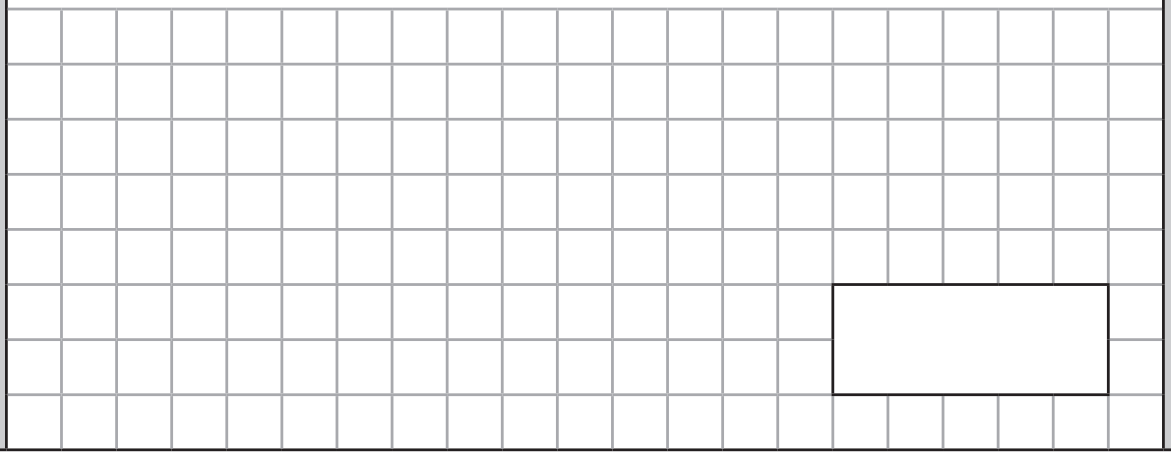
25 $7 \times 6 =$



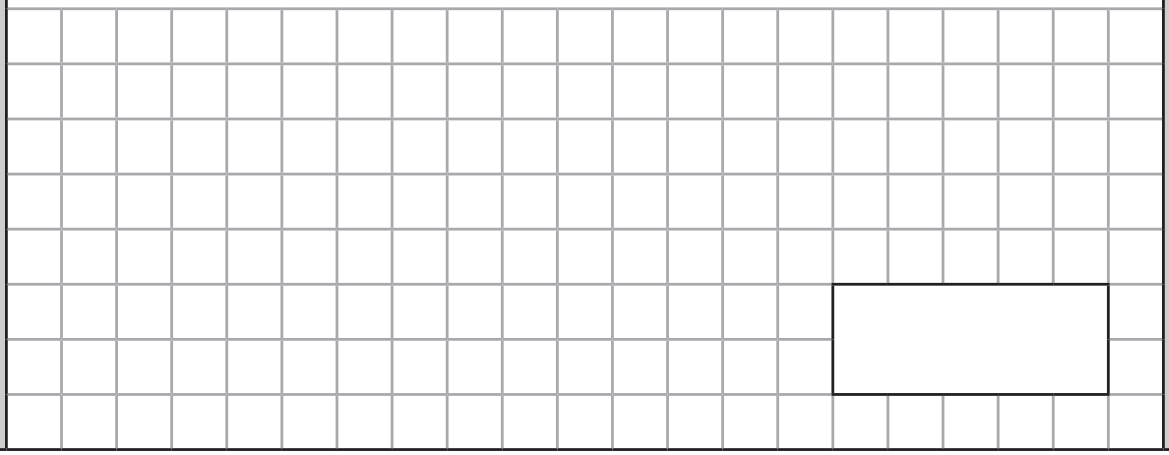
26 $8 \times 7 =$



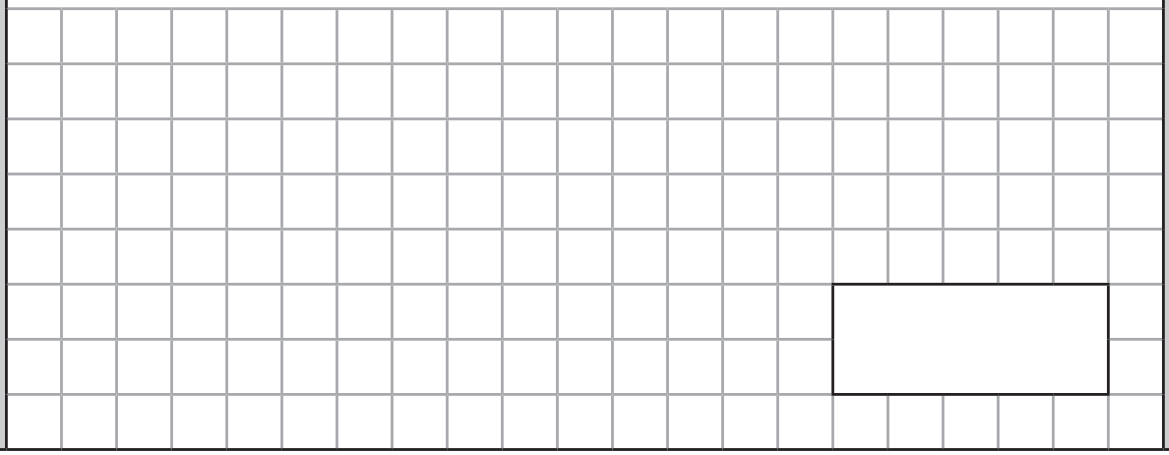
27 $2 \times 11 =$



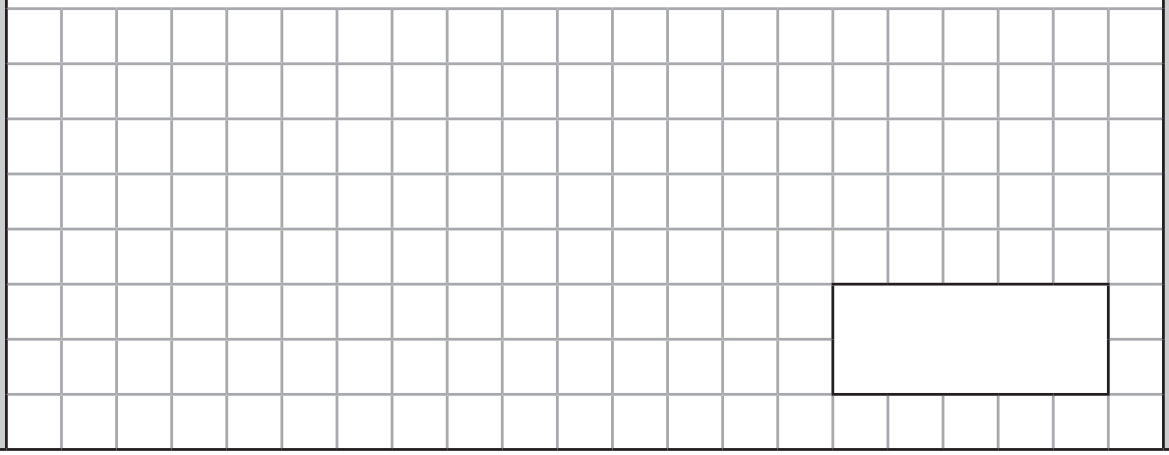
28 $96 \div 12 =$



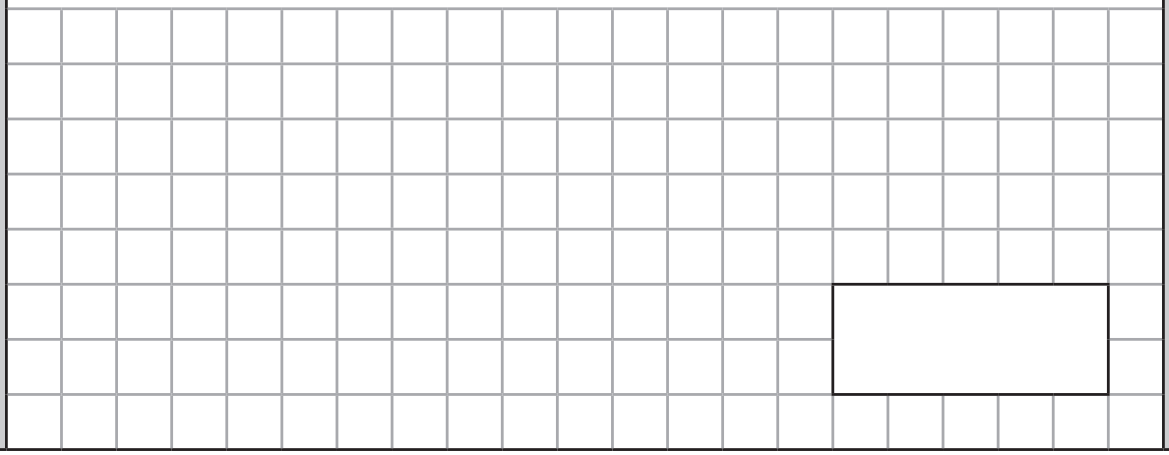
29 $60 \div 5 =$



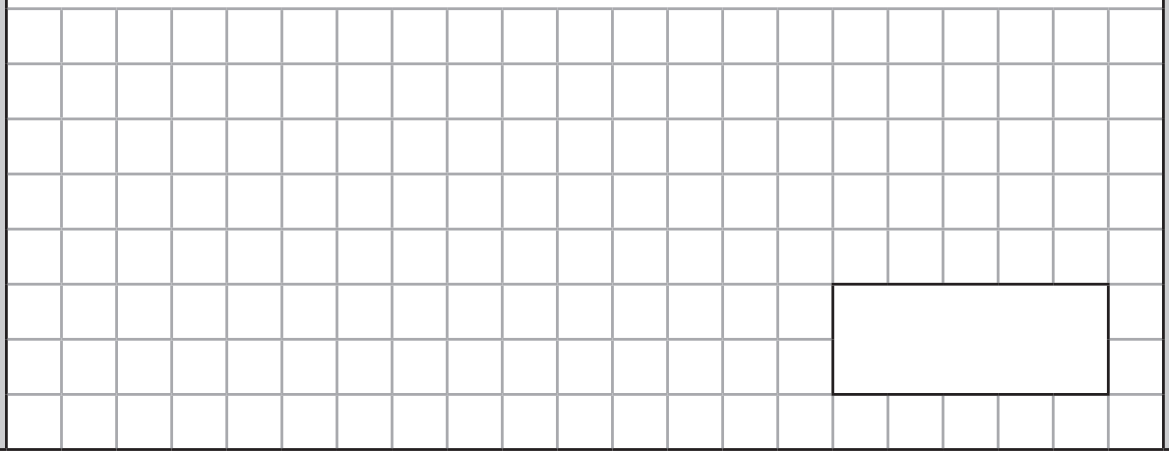
30 $56 \div 8 =$



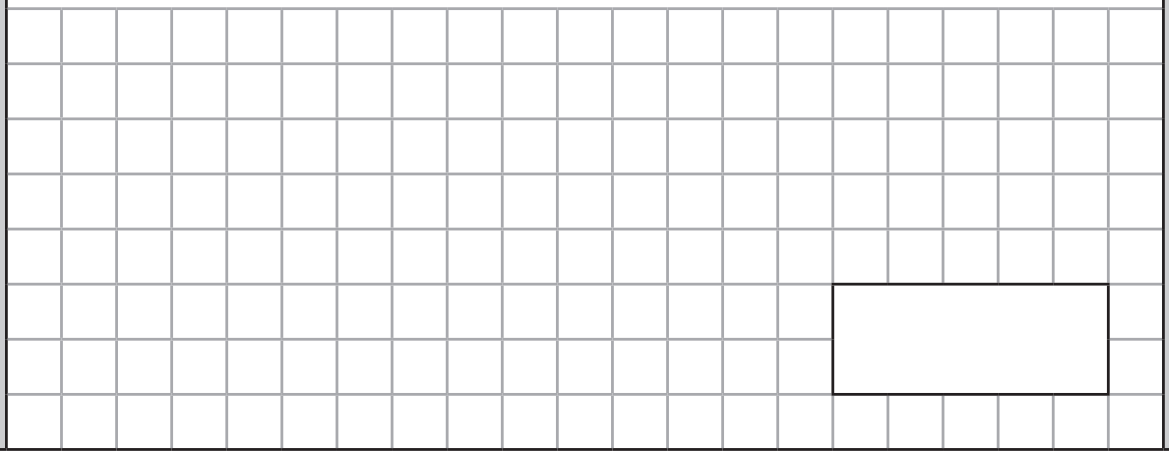
31 $60 \times 8 =$



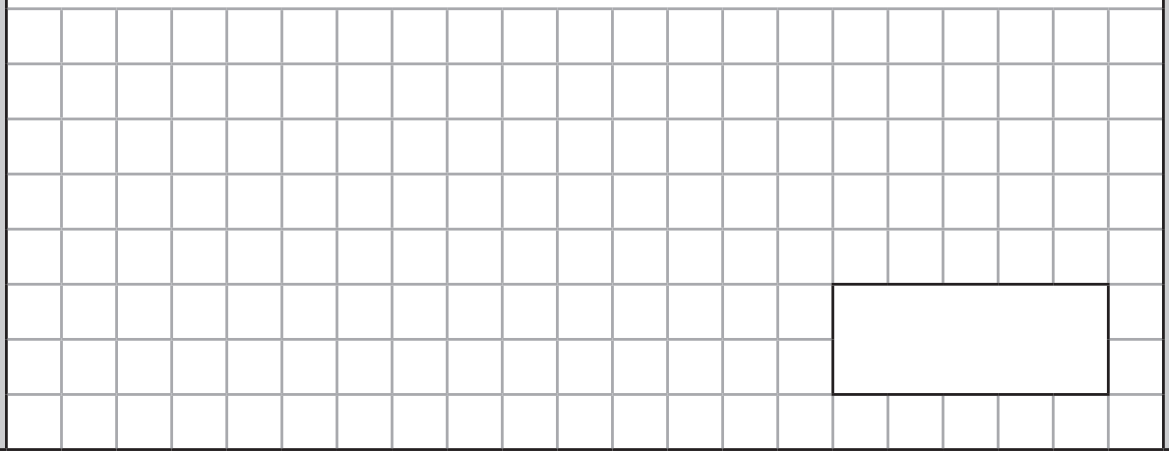
32 $560 \div 7 =$



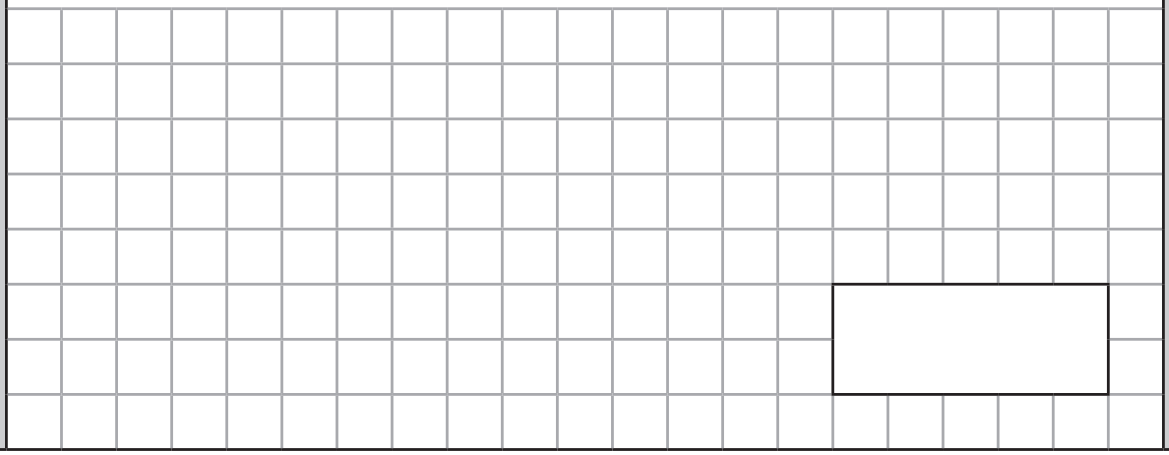
33 $90 \times 4 =$



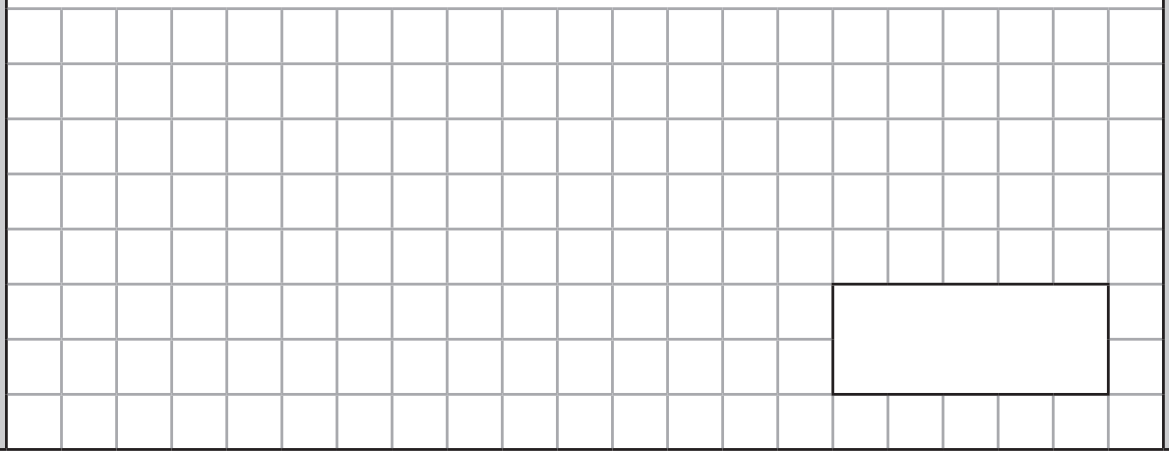
34 $630 \div 9 =$



35 $11 \times 30 =$



36 $540 \div 6 =$



Year 6 Arithmetic Quiz 1: Answers

1. 65

2. 37

3. 101

4. 406

5. 661

6. 1024

7. 49

8. 15

9. 93

10. 482

11. 967

12. 82

13. 725

14. 1001

15. 341

16. 811

17. 922

18. 552

19. 653

20. 357

21. 869

22. 1237

23. 99

24. 507

25. 42

26. 56

27. 22

28. 8

29. 12

30. 7

31. 480

32. 80

33. 360

34. 70

35. 330

36. 90

Year 6 Arithmetic Quiz 1

Find 10 or 100 more or less than a given number

Add 10 or 100 by increasing the tens or hundreds digit: 285 + 10 = 295.

Where the digit is a 9, the next place value increases by a hundred or thousand and the ten or hundred will be 0: 295 + 10 = 305

Subtract 10 or 100 by decreasing the tens or hundreds digit: 412 – 10 = 402

Where the digit is a 0, the next place value is decreased by a hundred of thousand and the ten or hundred will be 9: 402 – 10 = 392

Adding and subtracting three-digit numbers and ones, tens and hundreds

As with adding or subtracting 10 or 100, adding ones, tens or hundreds involves adding or subtracting the relevant place value and sometimes this may affect the next higher place value as well.

27**3** + **4** = 27**7** because 3 + 4 = 7

2**86** + **8** = 2**94** because 86 + 8 = 94

or

3**4**9 – **3**0 = 3**1**9 because 40 – 30 = 10 or 4 tens – 3 tens = 1 ten

723 = **5**0 = **67**3 because 120 – 50 = 73 or 12 tens – 5 tens = 7 tens

If your child struggles with these, then start with a problem similar to the first example each time. It will take lots of practice to embed this process fully, even if your child says they 'understand' it.

Multiplication tables

Children need to know all the multiplication tables to 12 × 12

7 × 6 = 42

56 ÷ 8 = 7

Use the multiplication facts

7 × 60 = 420

560 ÷ 8 = 70

Year 6 Arithmetic Quiz 2

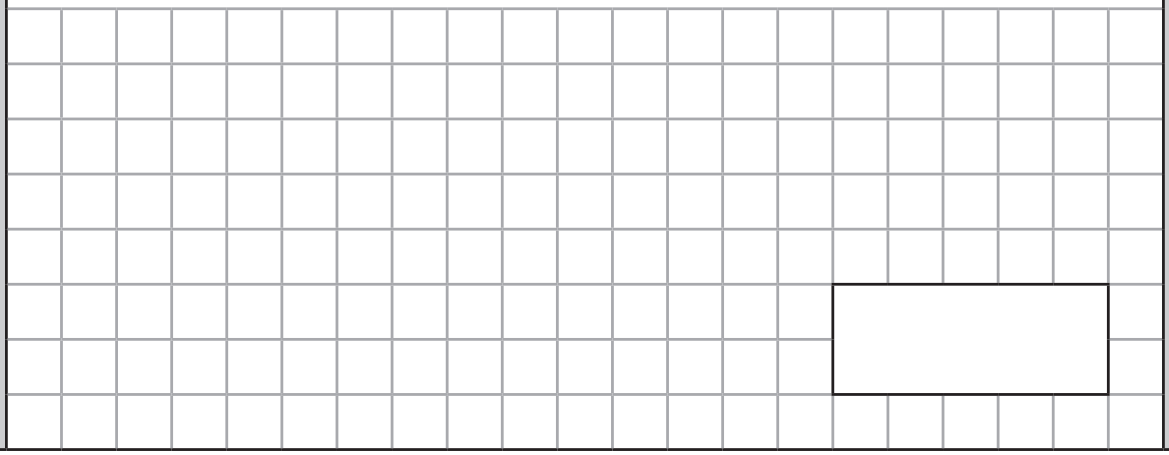
Addition using written columnar methods.

1 2693 + 398 =

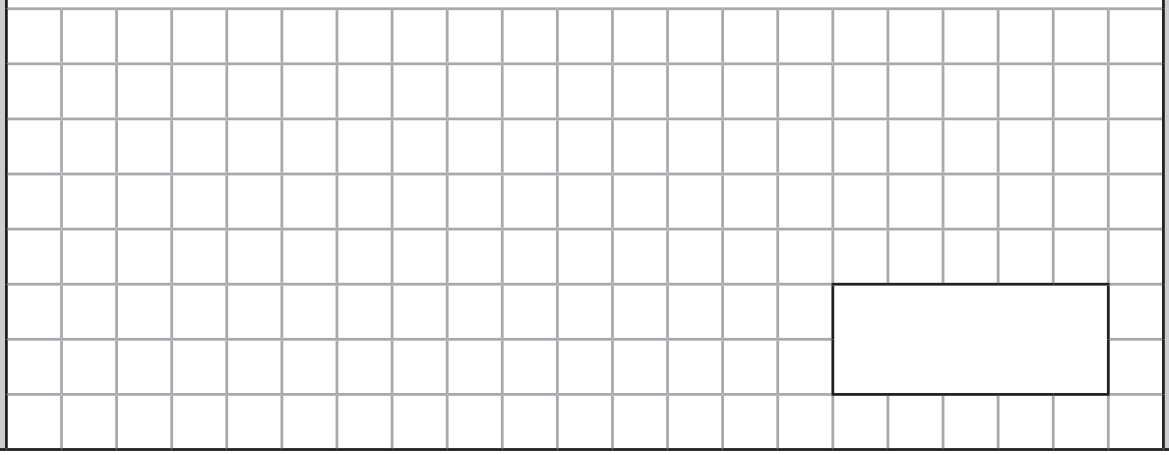
2 4098 + 673 =

3 5882 + 492 =

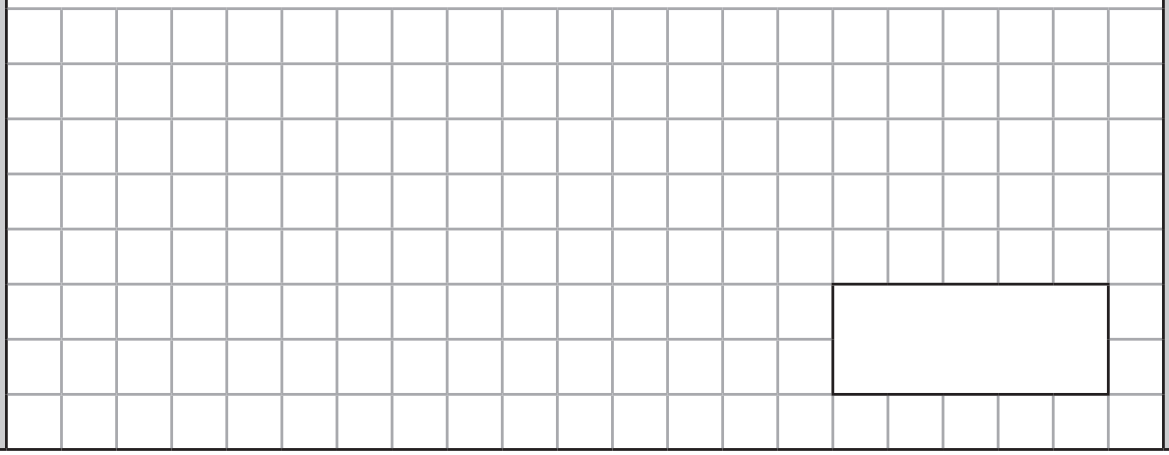
4 40 000 + 40 =



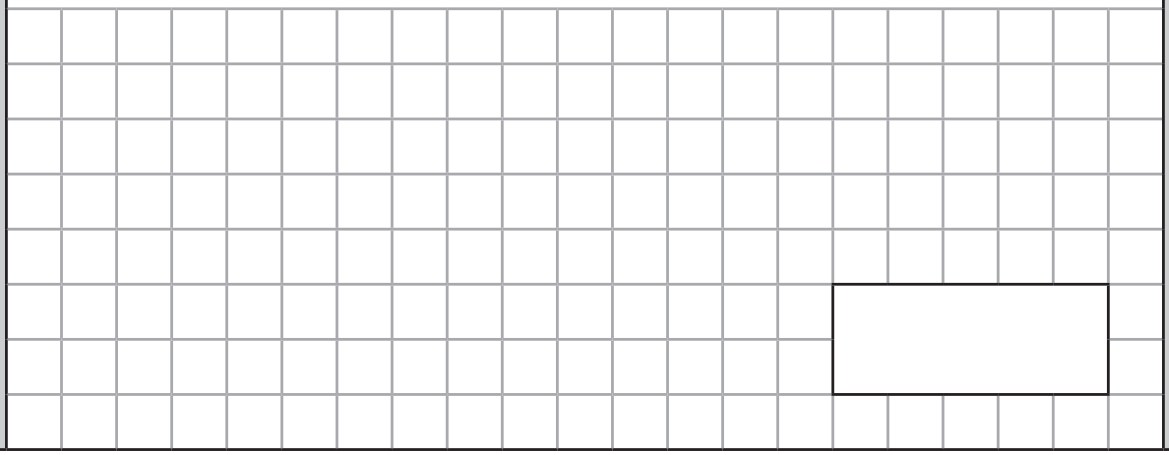
5 60 000 + 300 =



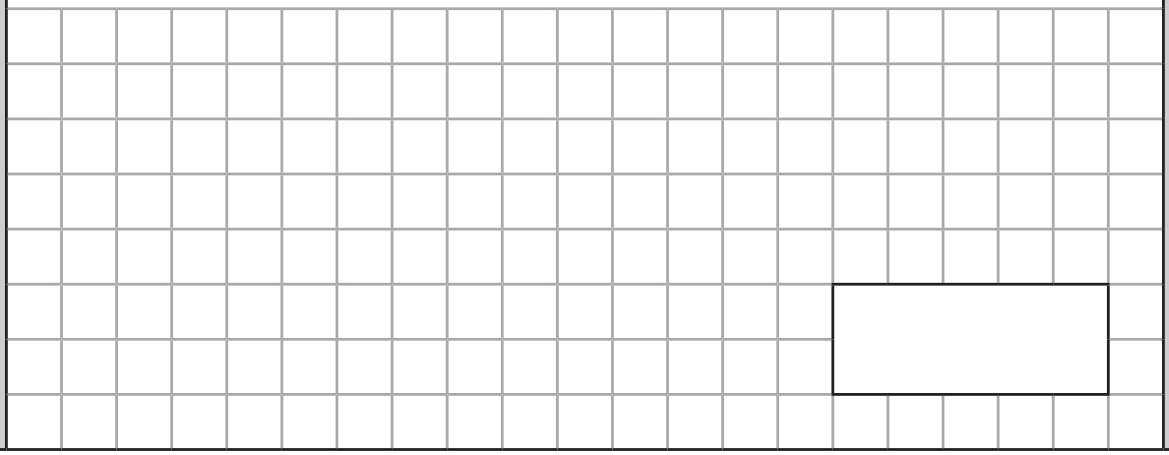
6 50 000 + 7000 =



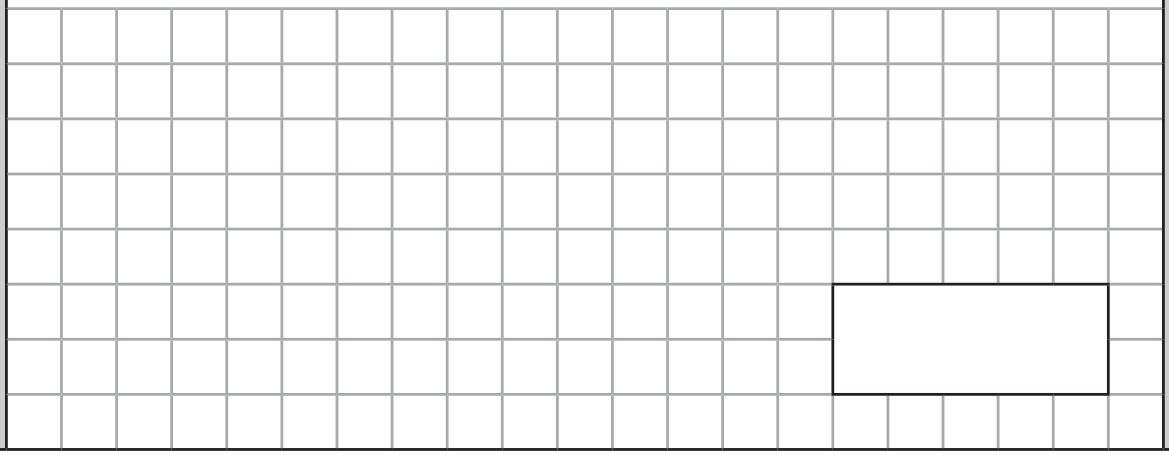
7 183 942 + 8862 =



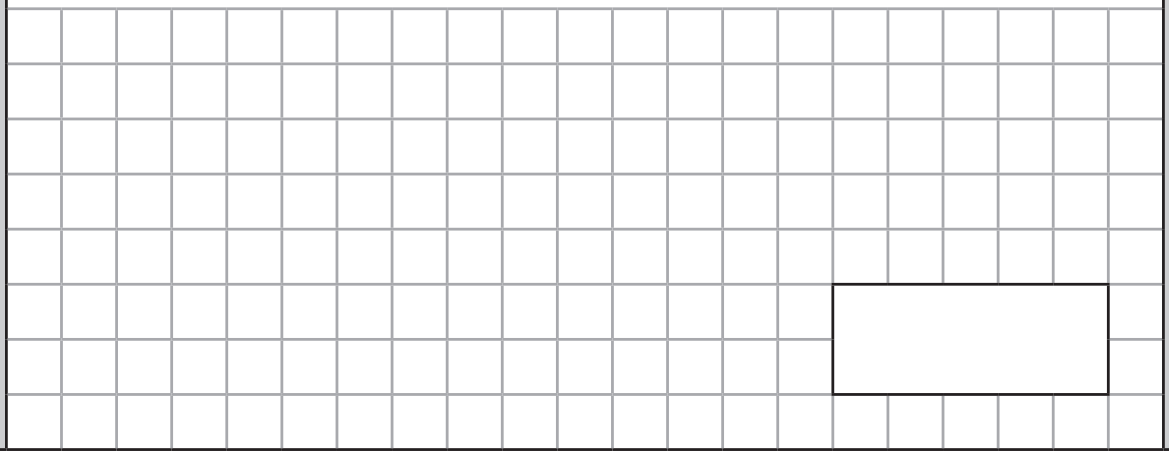
8 734 835 + 4982 =



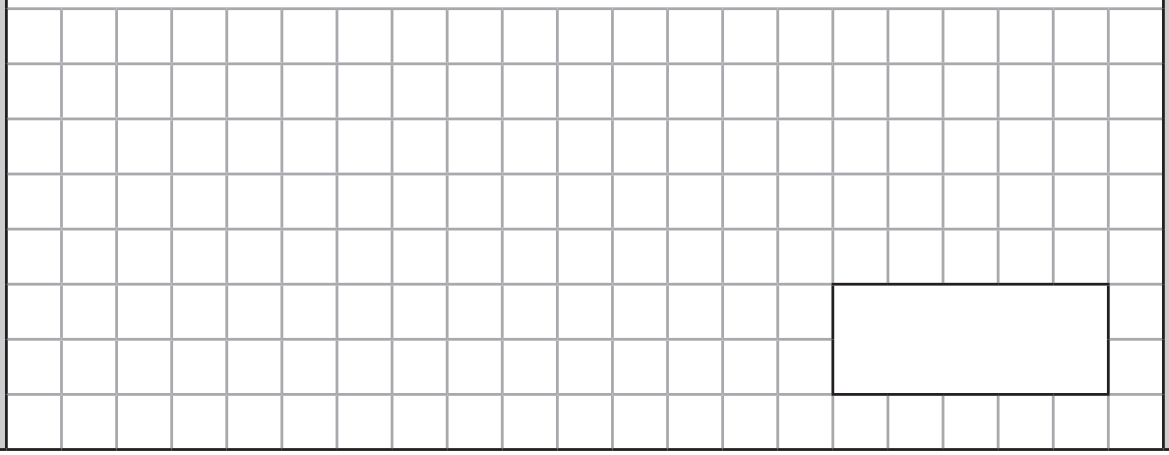
9 466 290 + 9342 =



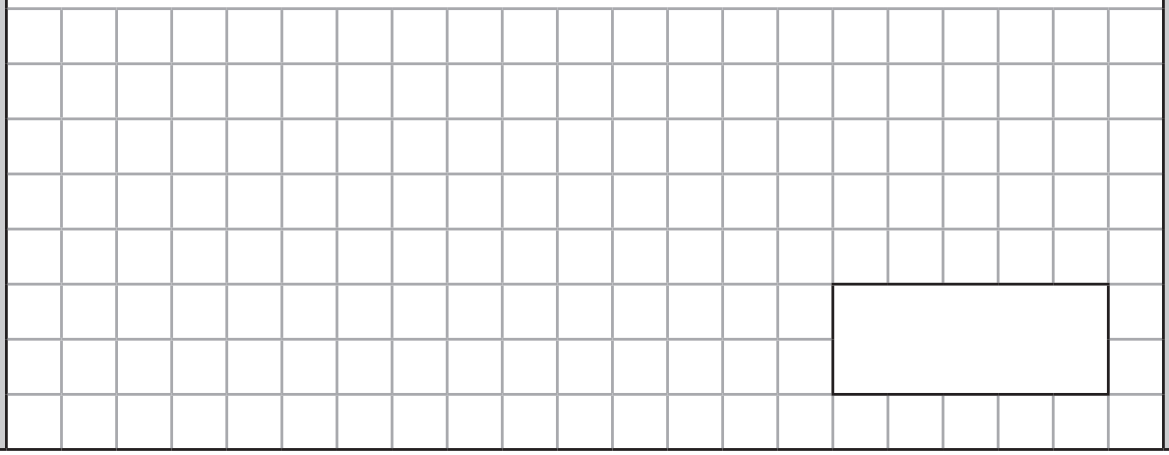
10 707 228 + 6993 =



11 911 267 + 5735 =

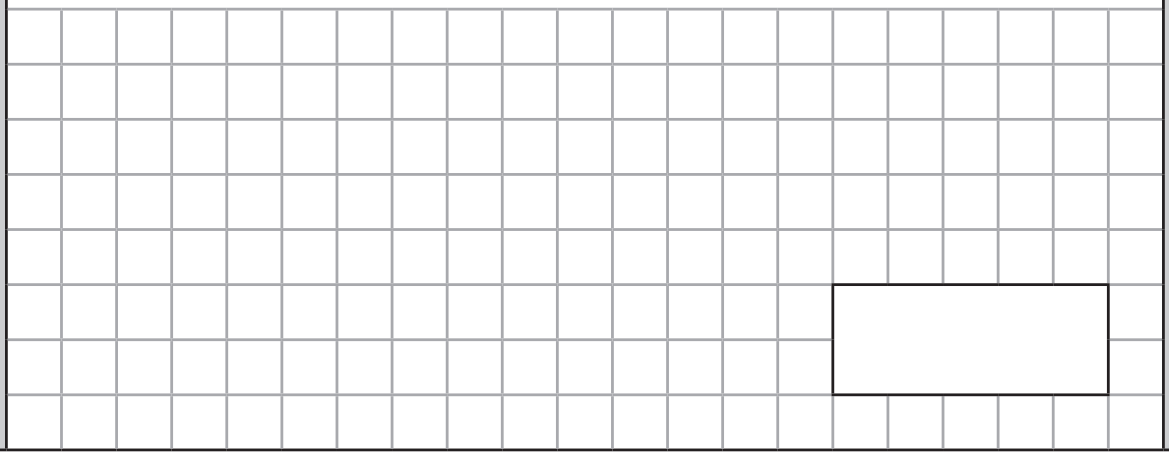


12 283 782 + 3768 =

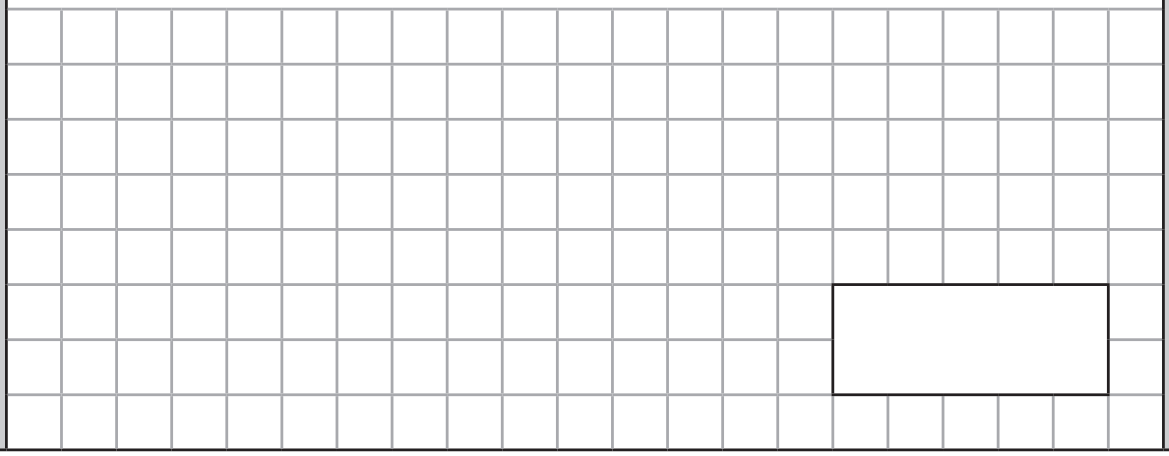


Subtraction using written columnar methods.

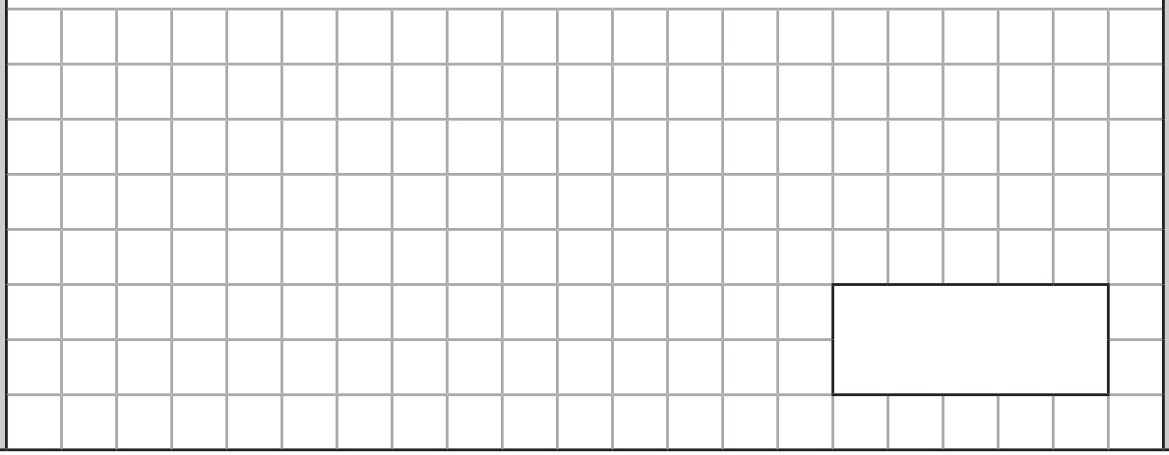
13 8273 – 351 =



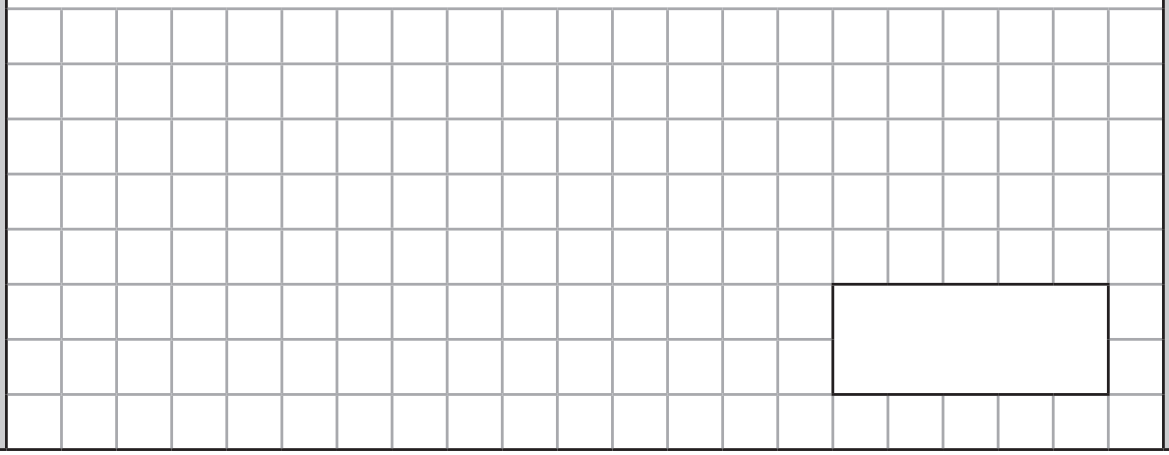
14 4772 – 298 =



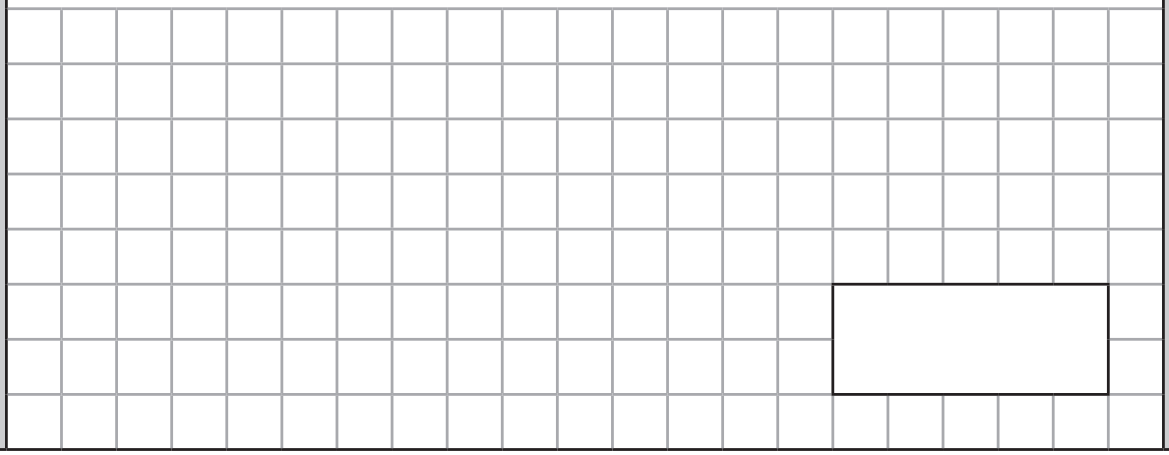
15 9035 – 836 =



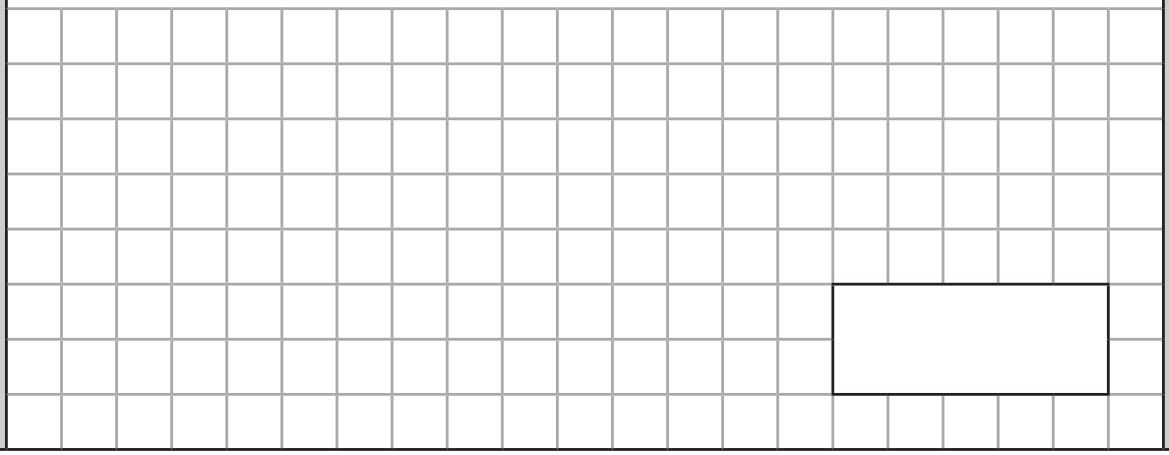
16 50 000 – 30 =



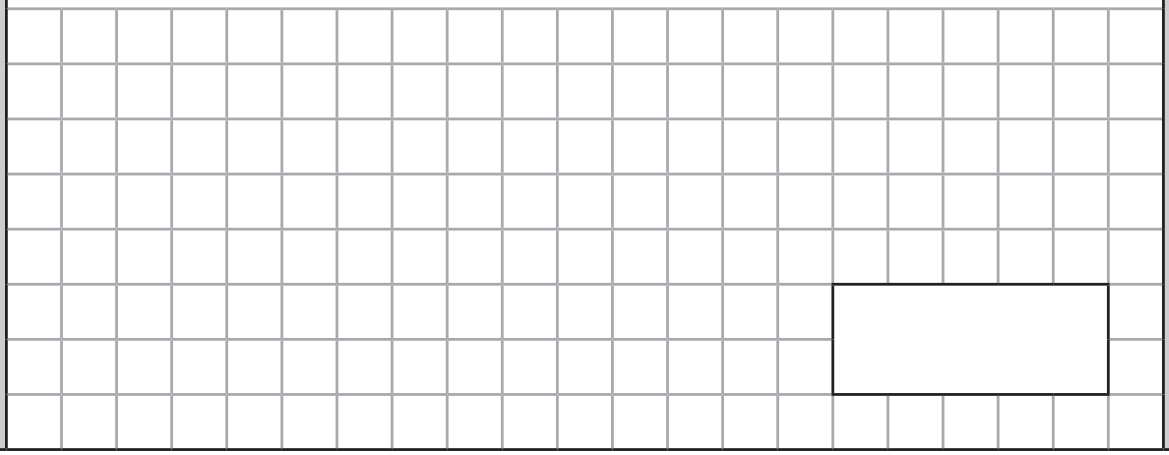
17 40 000 – 200 =



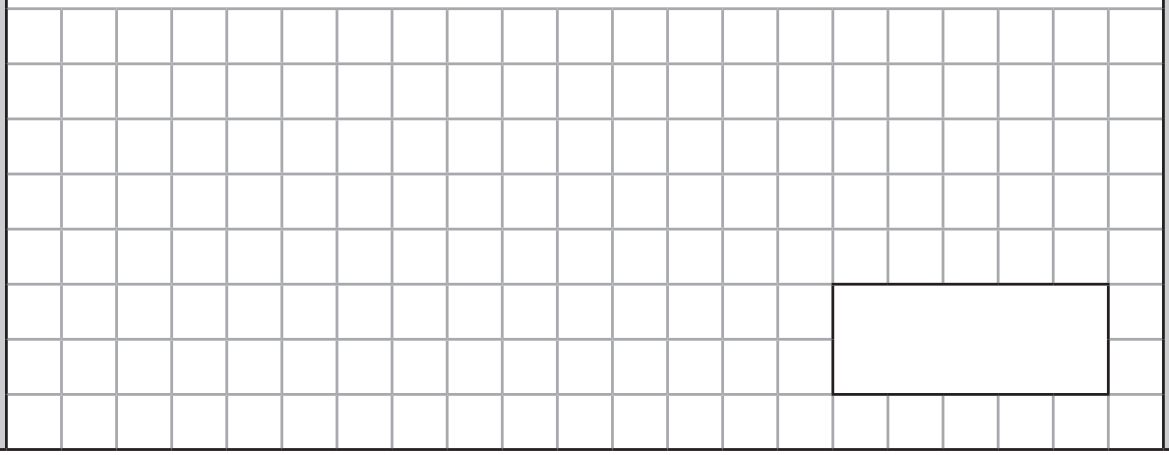
18 70 000 – 8000 =



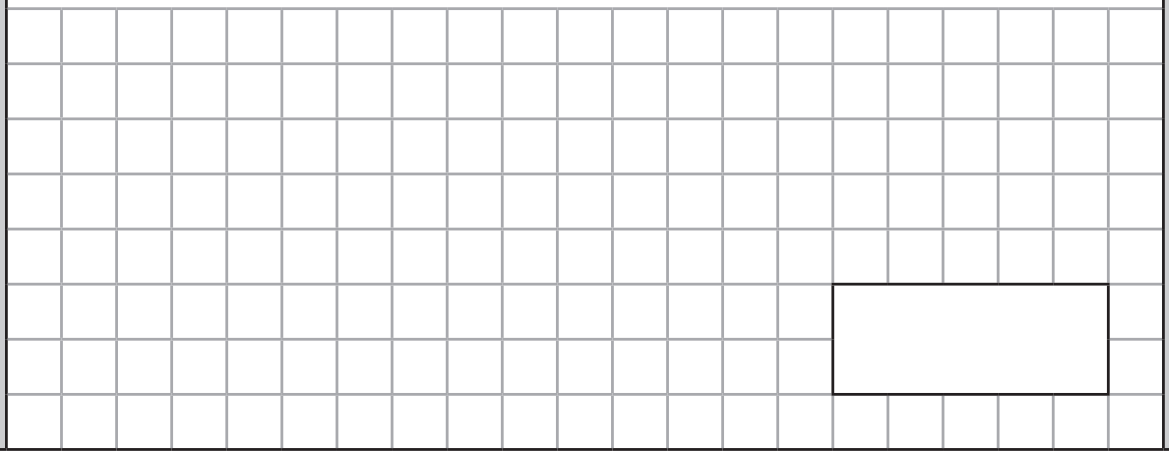
19 672 928 – 7290 =



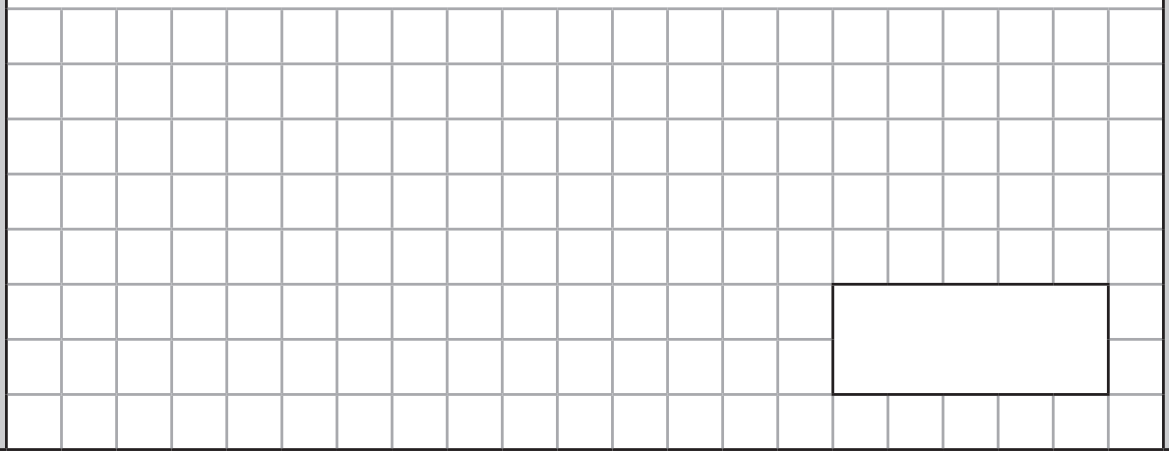
20 580 277 – 4948 =



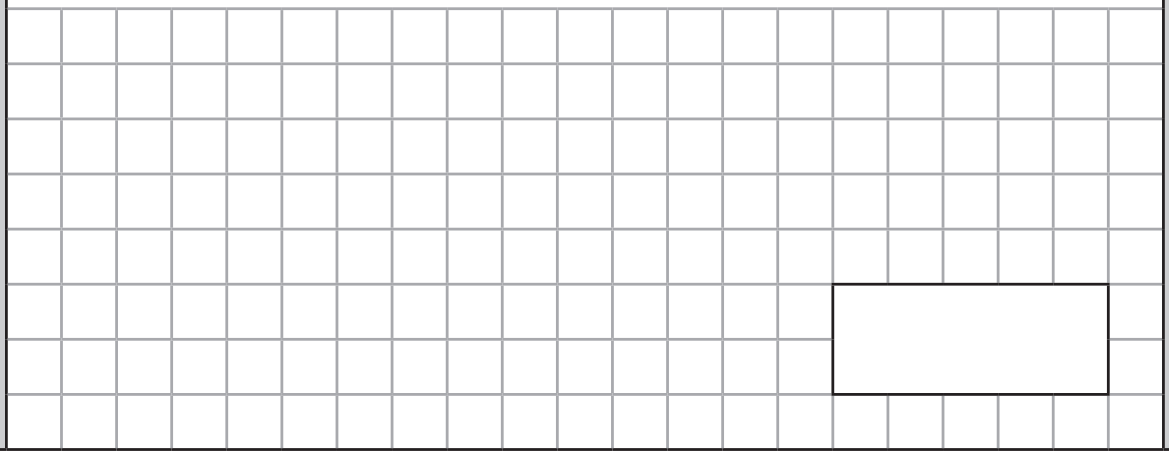
21 182 384 – 3929 =



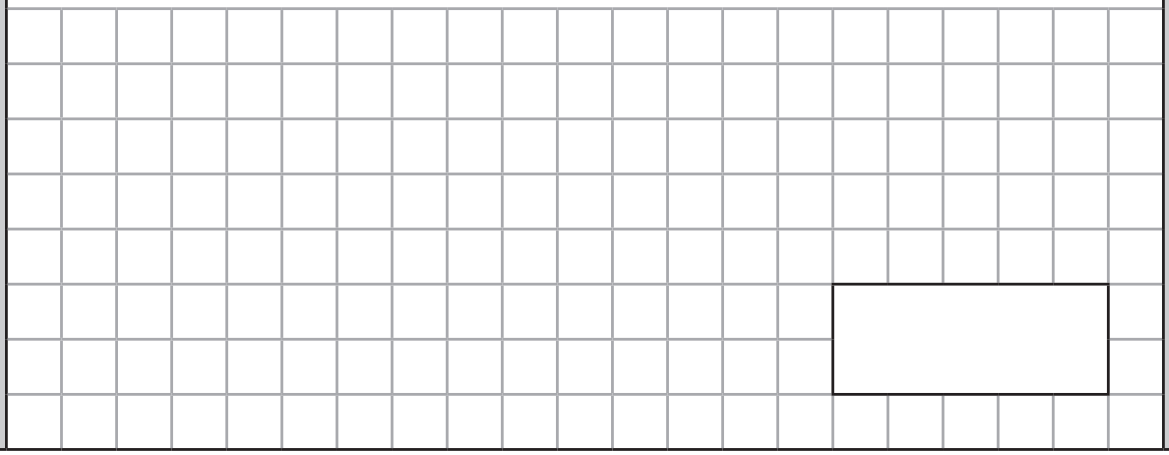
22 738 712 − 4675 =



23 300 187 − 5923 =

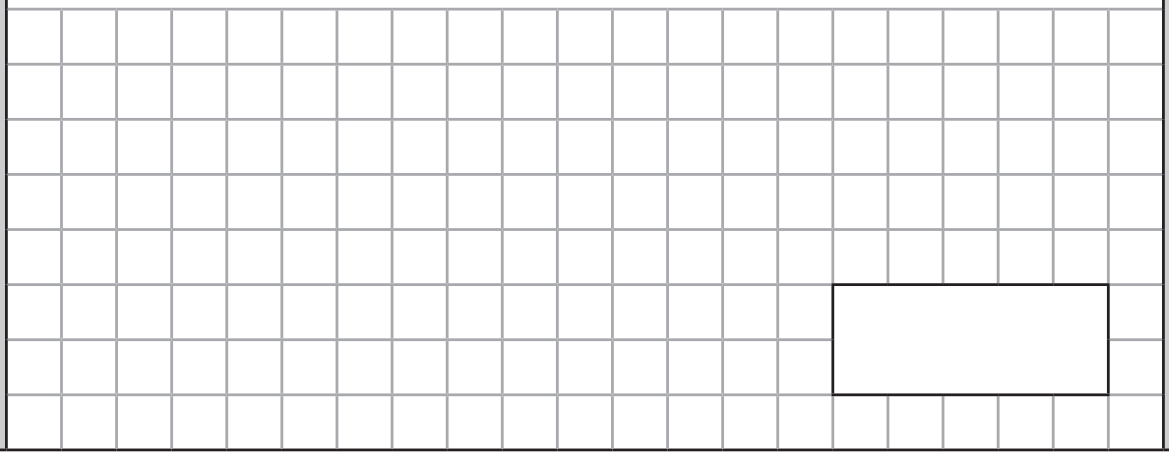


24 925 693 − 5829 =

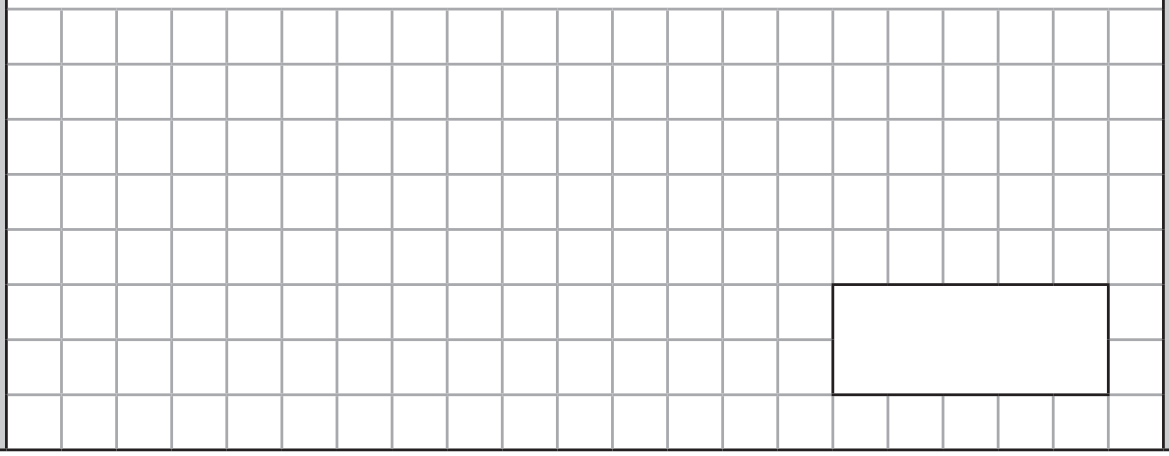


Order of operations.

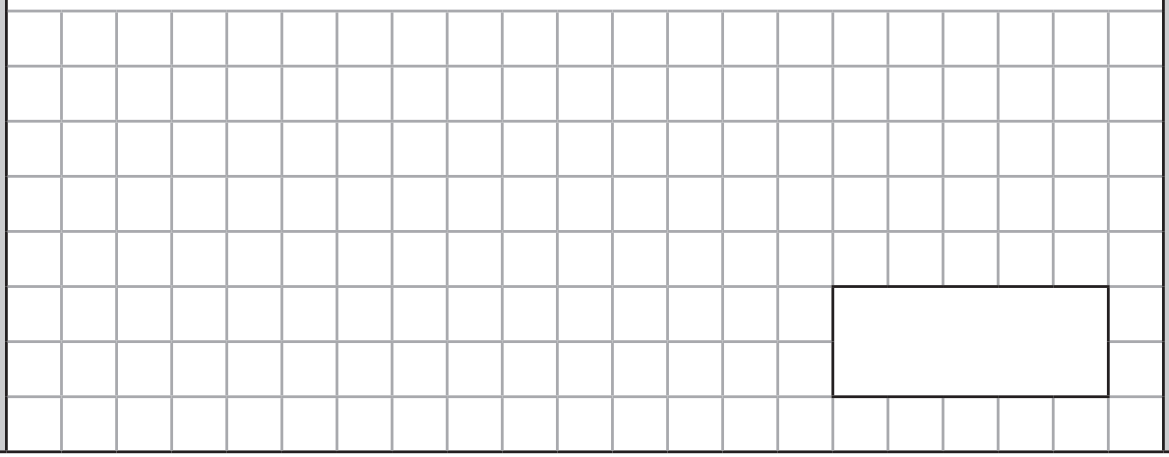
25 $9 \times (4 + 2) =$



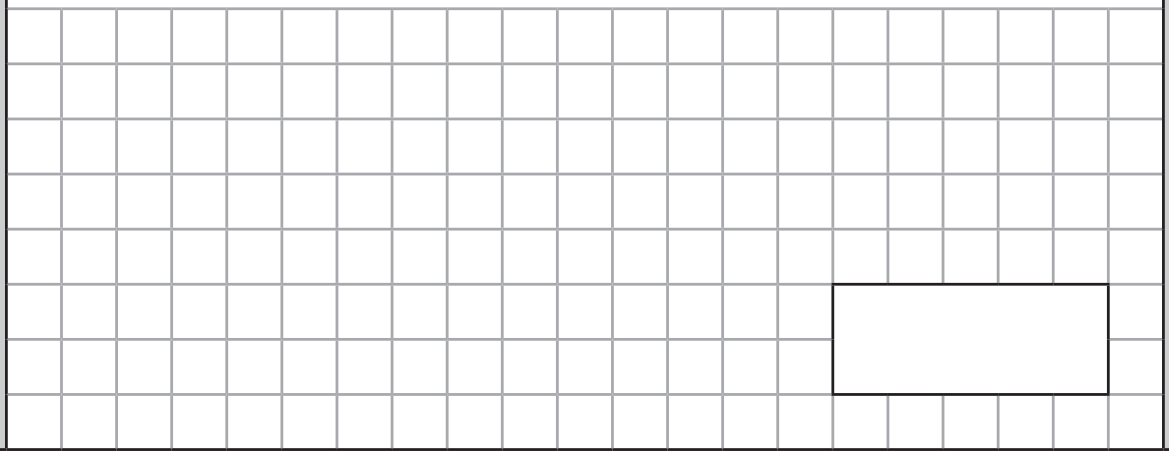
26 $9 \times 4 + 2 =$



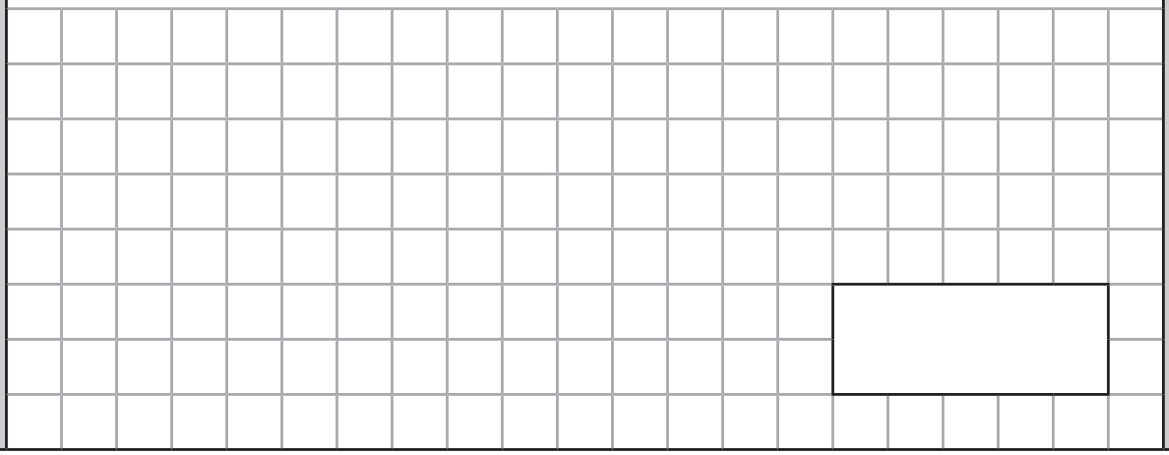
27 $5 + 2 \times 7 =$



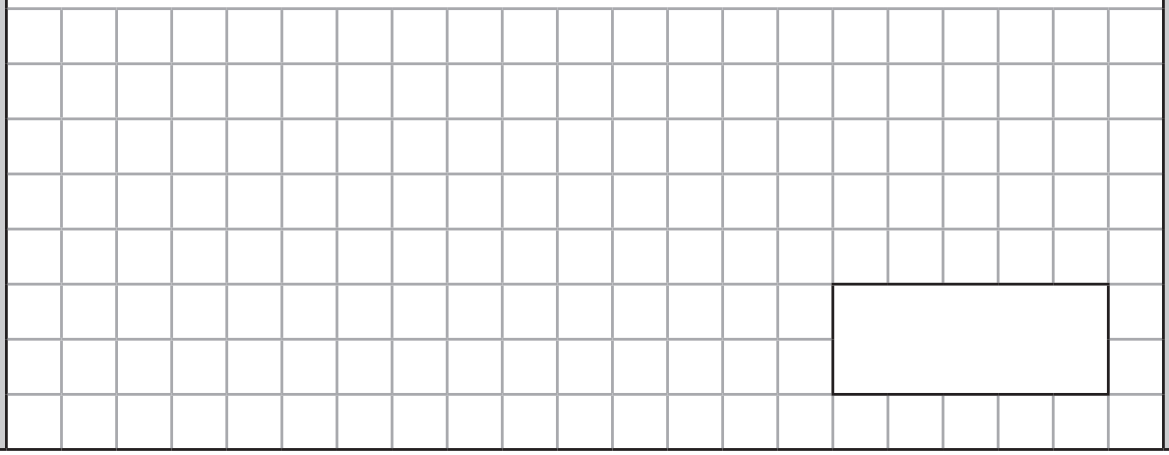
28 $(5 + 2) \times 7 =$



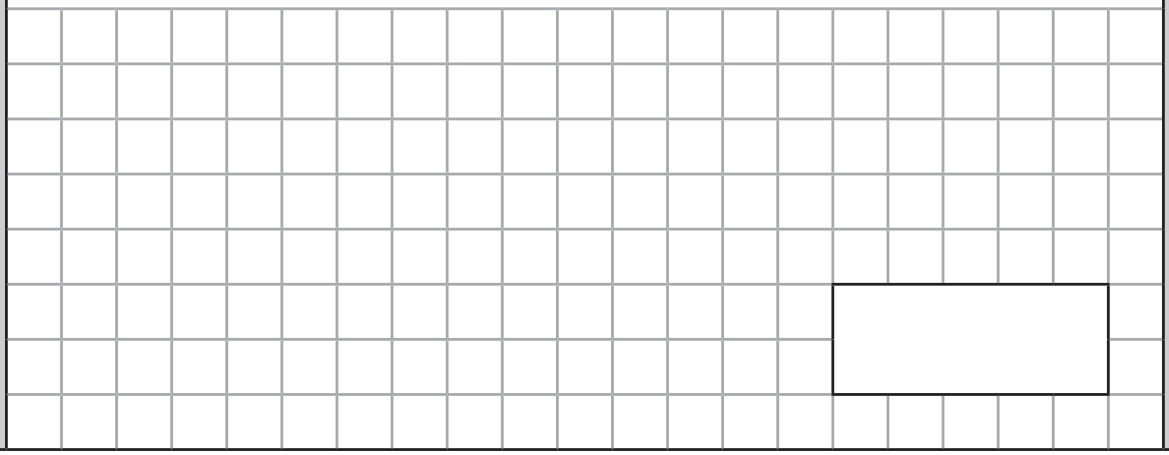
29 $9 + 6 \div 3 =$



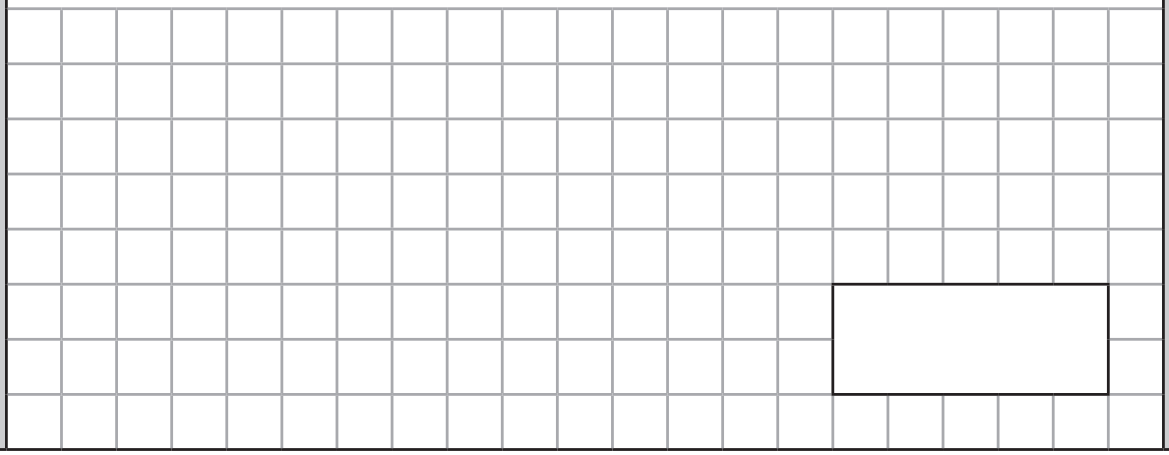
30 $(9 + 6) \div 3 =$



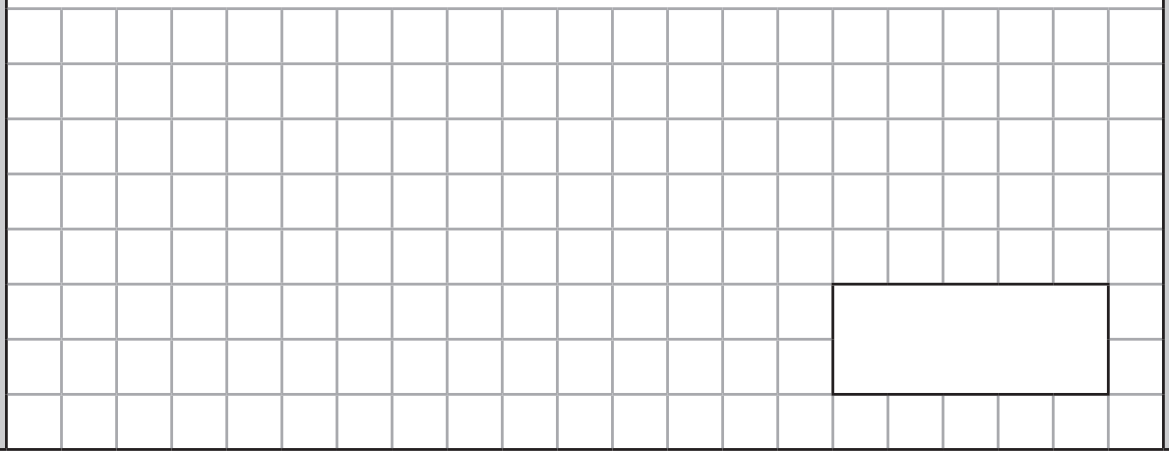
31 $40 \div (8 - 4) =$



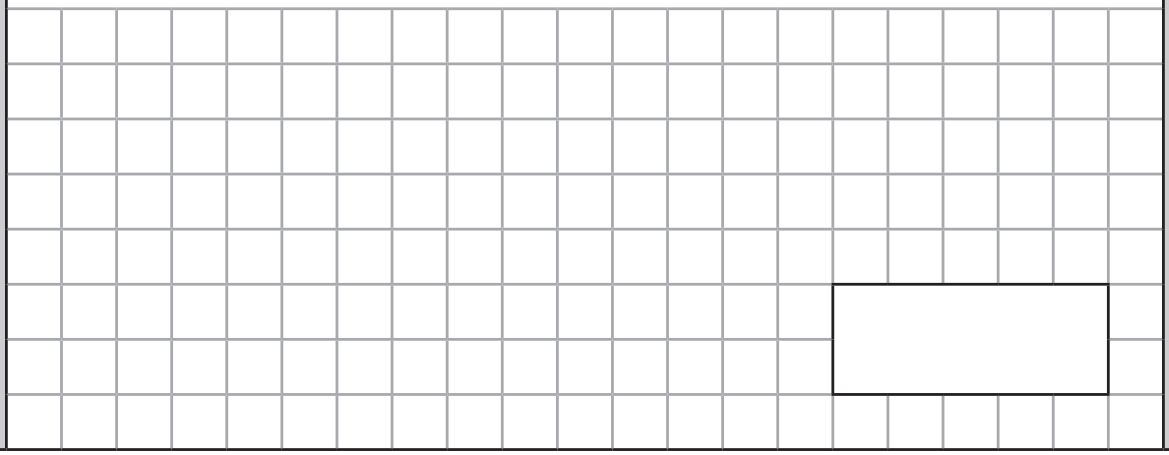
32 $40 \div 8 - 4 =$



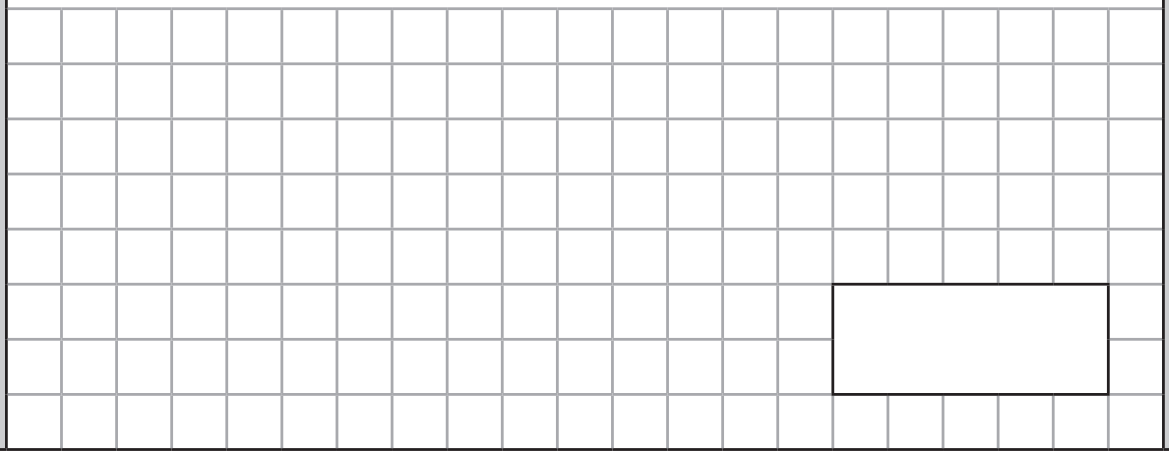
33 $18 - 12 \div 2 =$



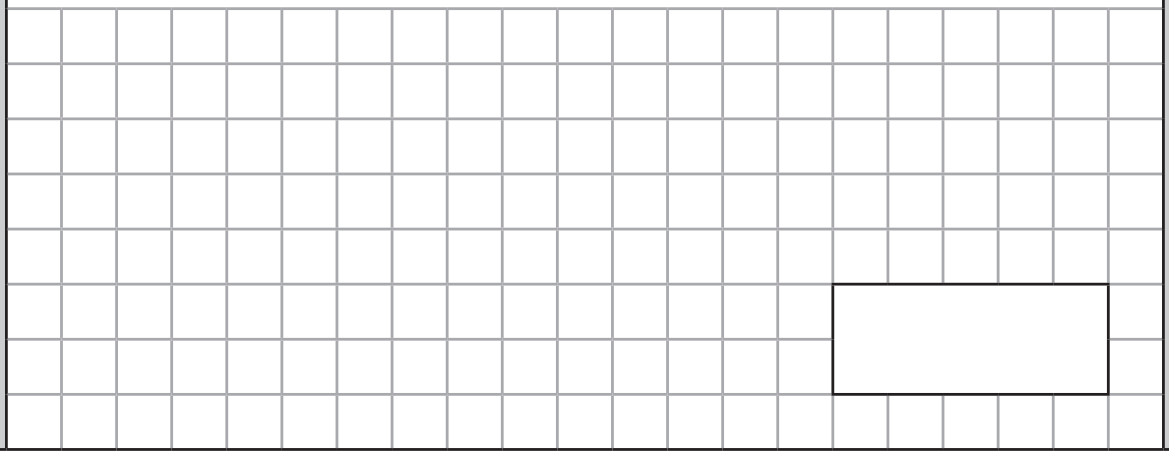
34 $(18 - 12) \div 2 =$



35 $12 - 3 \times 4 =$



36 $(12 - 3) \times 4 =$



Year 6 Arithmetic Quiz 2: Answers

1. 3091

2. 4771

3. 6374

4. 40 040

5. 60 300

6. 57 000

7. 192 804

8. 739 817

9. 475 632

10. 714 221

11. 917 002

12. 287 550

13. 7922

14. 4474

15. 8199

16. 49 970

17. 39 800

18. 62 000

19. 665 638

20. 575 329

21. 178 455

22. 734 037

23. 294 264

24. 919 864

25. 54

26. 38

27. 19

28. 49

29. 11

30. 5

31. 10

32. 1

33. 12

34. 3

35. 0

36. 36

Year 6 Arithmetic Quiz 2

Addition using written columnar methods

1. Write the calculation lining up from the right with the ones, tens and hundreds in line. (It can sometimes be helpful to label the columns 1, T, H, Th.)
2. Add the ones: 7 + 6 = 13. Write the 3 under the 6 and the 1 (ten) under the next column.
3. Add the tens: 1 + 4 + 1 = 6. Remember to include the ten carried from adding the ones.
4. Add the hundreds: 4 + 8 = 12. Write the 2 (hundreds) under the 8 and the 1 (thousand) under the next column.
5. Add the thousands: 6 + 1 = 7. Remember to include the thousand carried from adding the hundreds.

	6	4	1	7	
	+	8	4	6	
	7	2	6	3	
	1		1		

Subtraction using written columnar methods

1. Write the calculation lining up from the right with the ones, tens and hundreds in line. (It can sometimes be helpful to label the columns 1, T, H, Th.)
2. Subtract the ones: 6 – 4 = 2. Write the 2 under the 4.
3. Subtract the tens: 3 – 8 would give a negative answer. Take a hundred from the 1 (hundred) making this 0 (hundreds) in order to make 13 in the tens column (13 tens). So 13 – 8 = 5. Write the 5 (tens) under the 8.
4. Subtract the hundreds: 0 – 5 would give a negative answer. Take a thousand from the 4 (thousands) leaving 3 (thousands) in order to make 10 in the hundreds column (10 hundreds). So 10 – 5 = 5. Write the 5 (hundreds) under the 5.
5. Subtract the thousands: 3 – 0 = 3.

	3 ~~4~~	10 ~~1~~	1 3	6	
	–	5	8	4	
	3	5	5	2	

Order of Operations

There is an agreed order for operations to be carried out. This is often known as BODMAS or BIDMAS.

Brackets
Order or **I**ndices
Division and **M**ultiplication
Addition and **S**ubtraction

Brackets: Start by calculating anything inside brackets.

3 × **(4 + 2)** = 3 × 6 = 18

Order or Indices: this includes the square number symbol 5^2.

4 + **5^2** = 4 + 25 = 29

Division and Multiplication: division first, then multiplication come before any addition and subtraction.

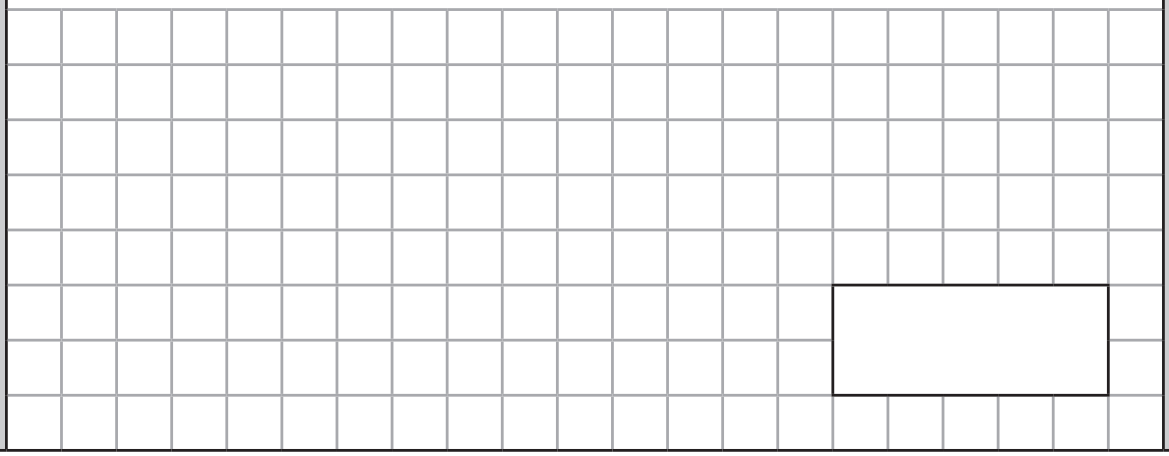
4 + **3 × 5** = 4 + 15 = 19

Addition and subtraction can be done in any order.

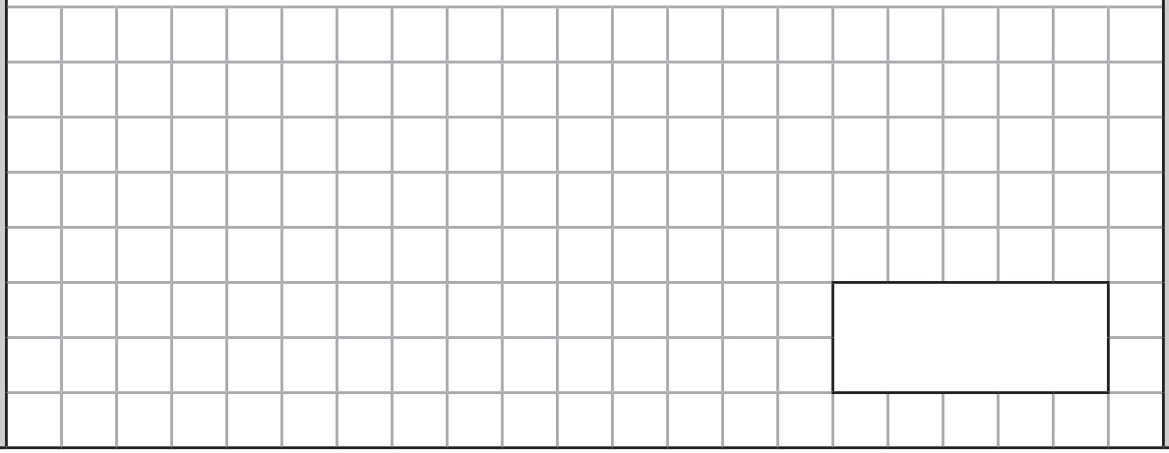
Year 6 Arithmetic Quiz 3

Square and cube numbers.

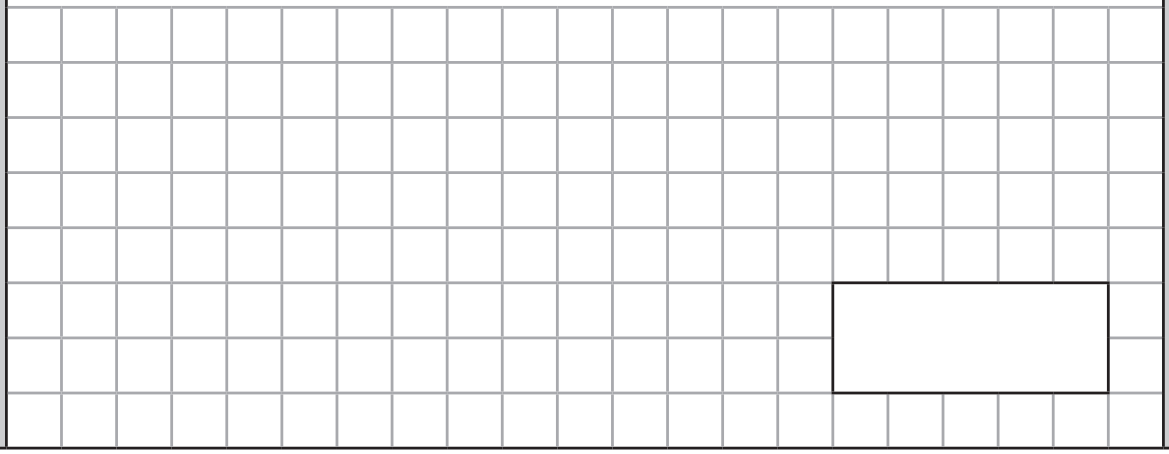
1 $3^2 =$



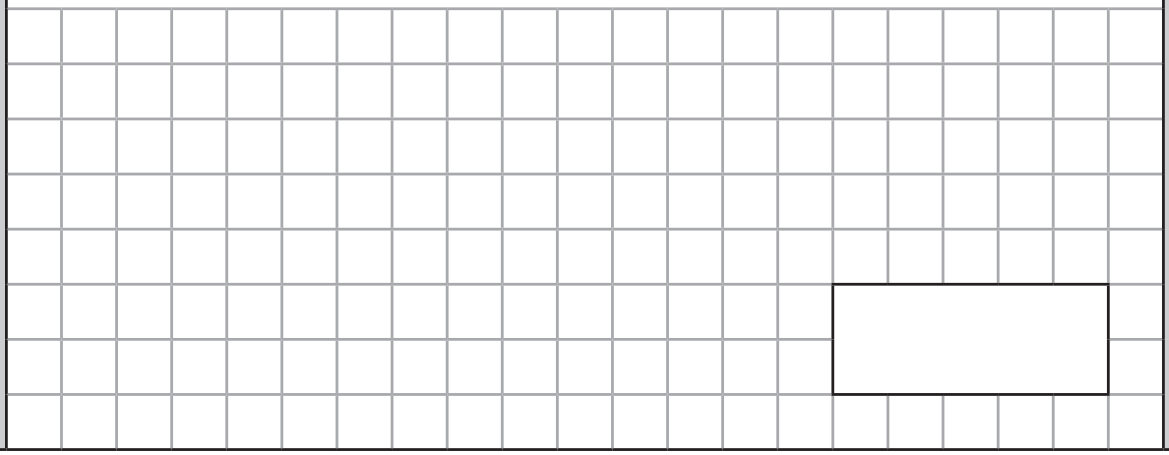
2 $5^2 =$



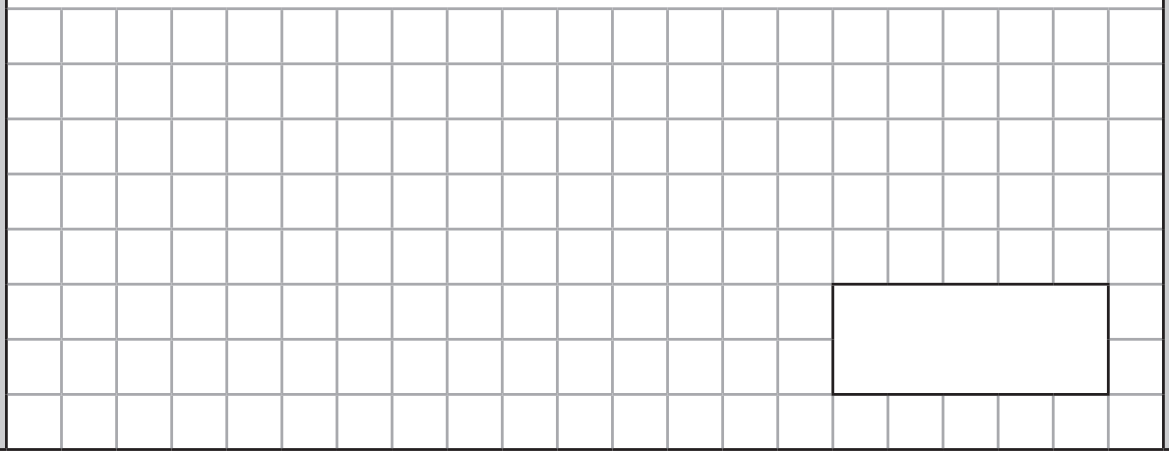
3 $7^2 =$



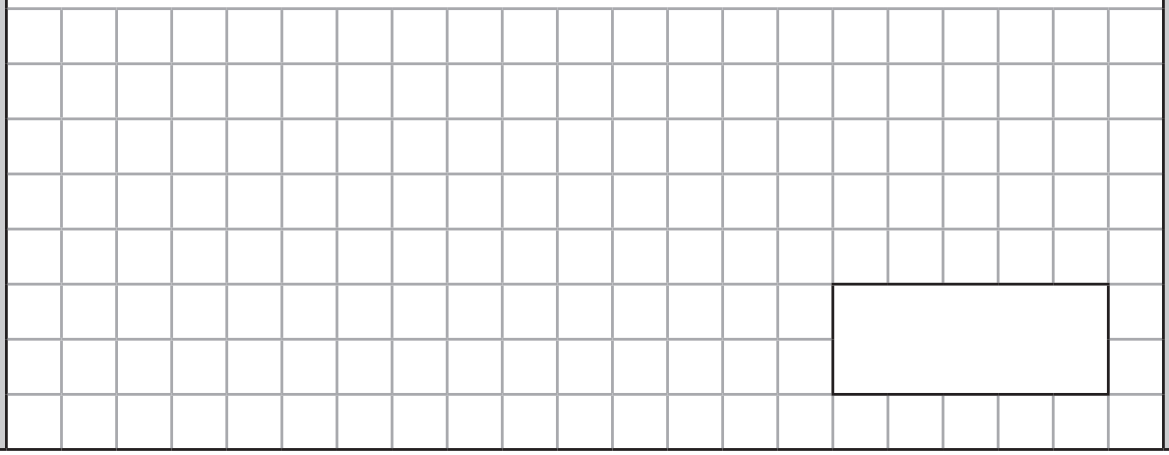
4 $2^3 =$



5 $3^3 =$

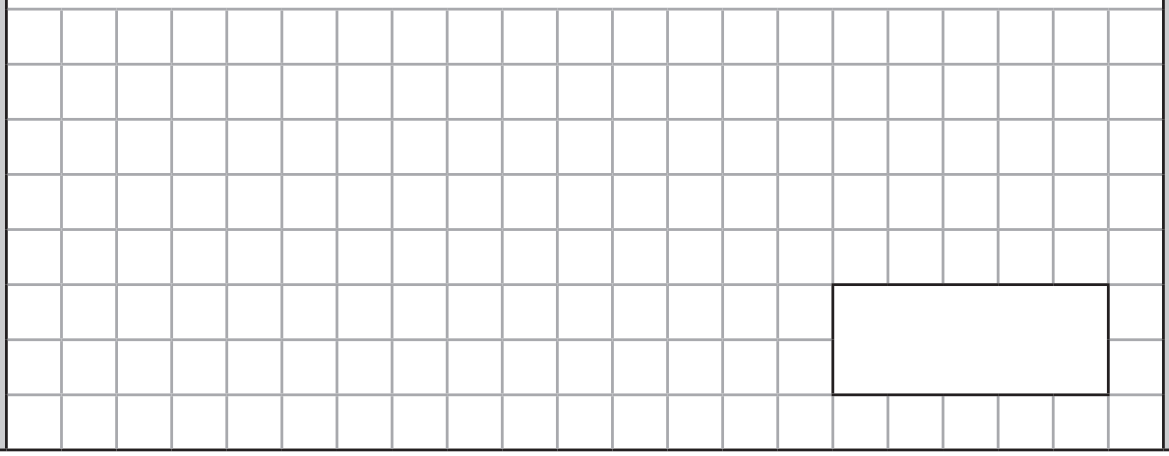


6 $5^3 =$

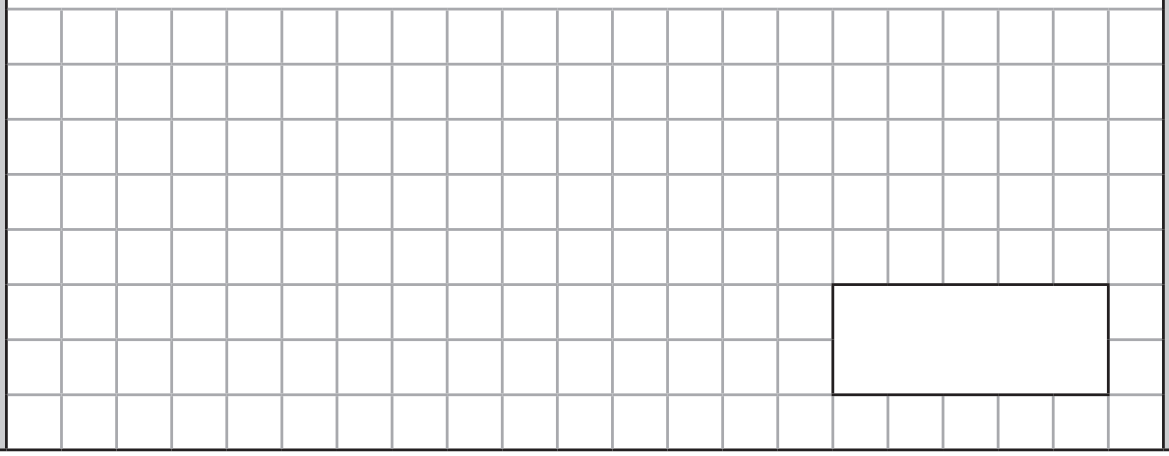


Multiply by 0 and 1, divide by 1.

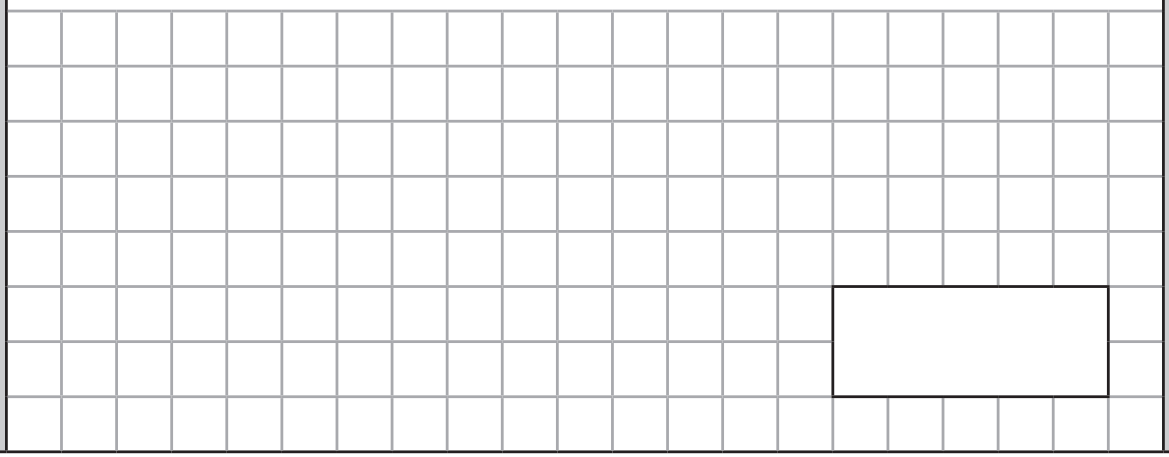
7 $78 \times 1 =$



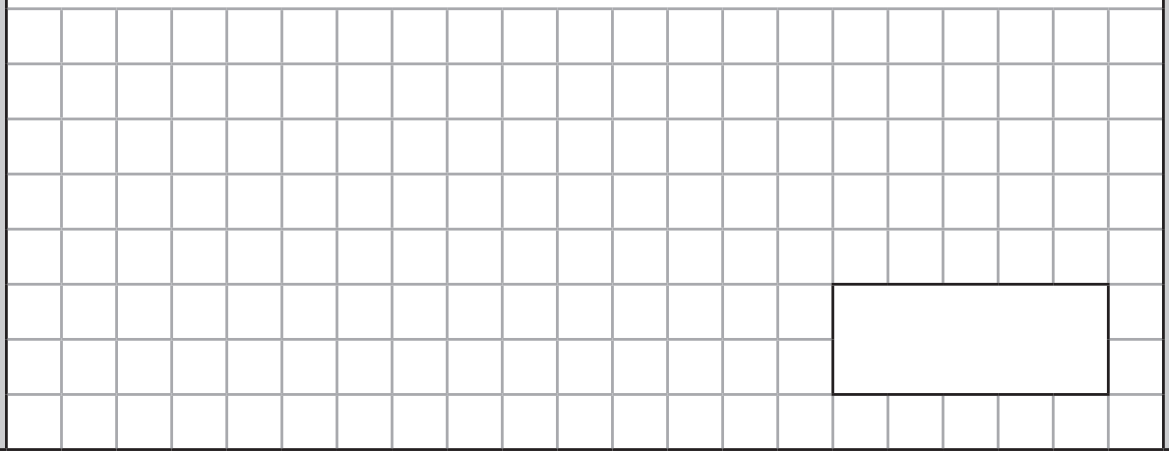
8 $1045 \times 1 =$



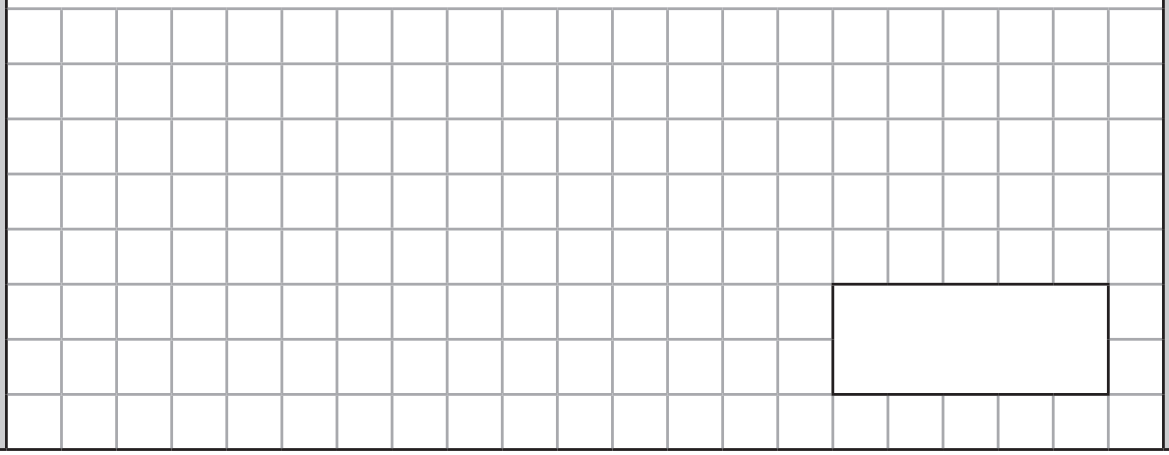
9 $62 \times 0 =$



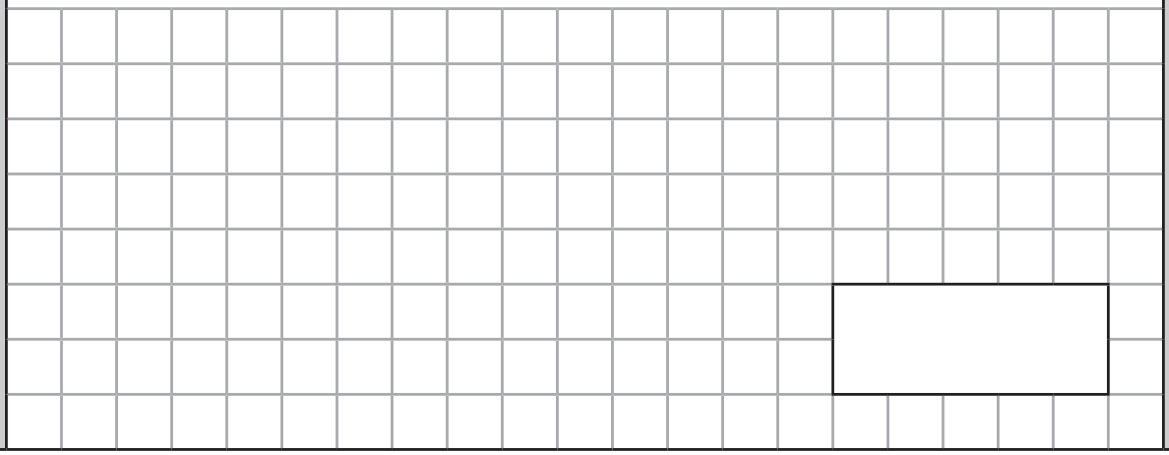
10 $723 \times 0 =$



11 $61 \div 1 =$

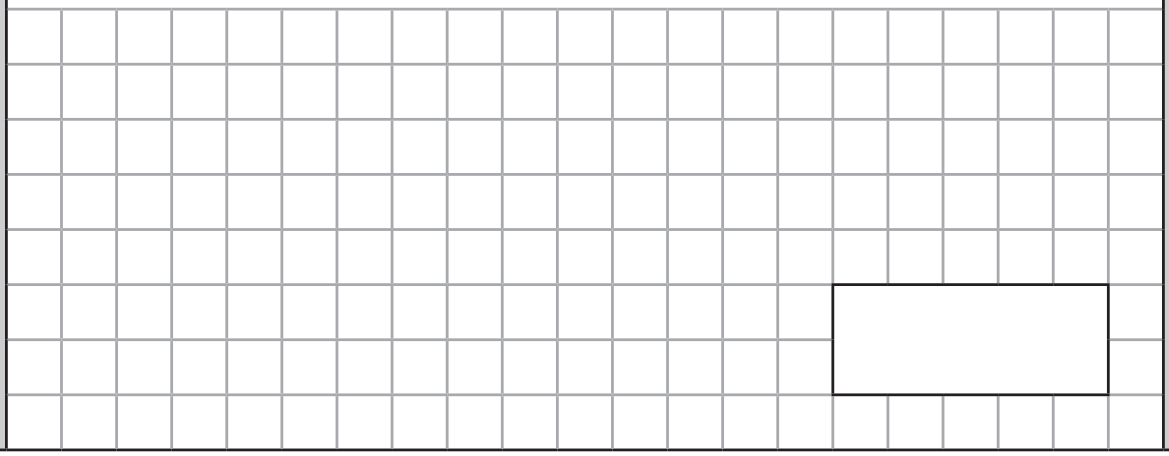


12 $261 \div 1 =$

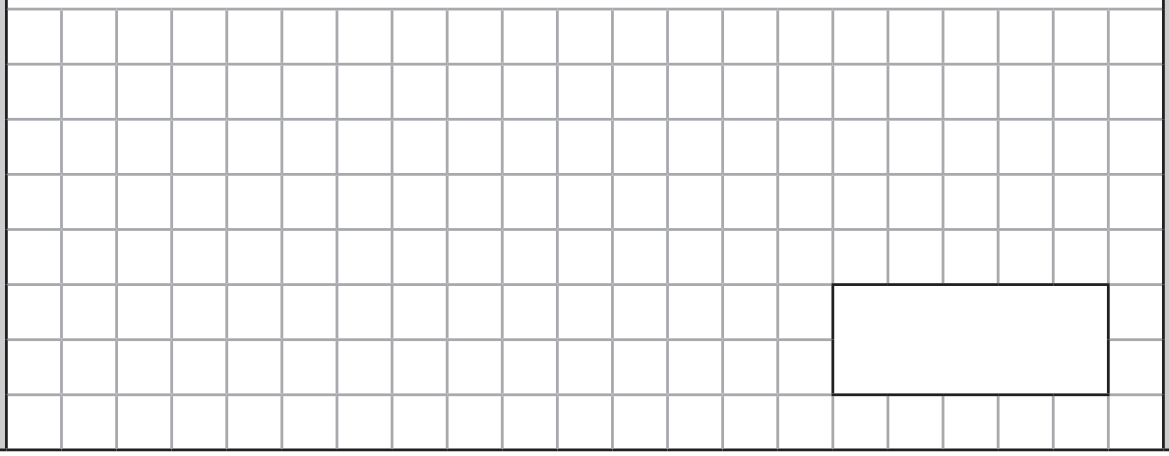


Multiplying three numbers.

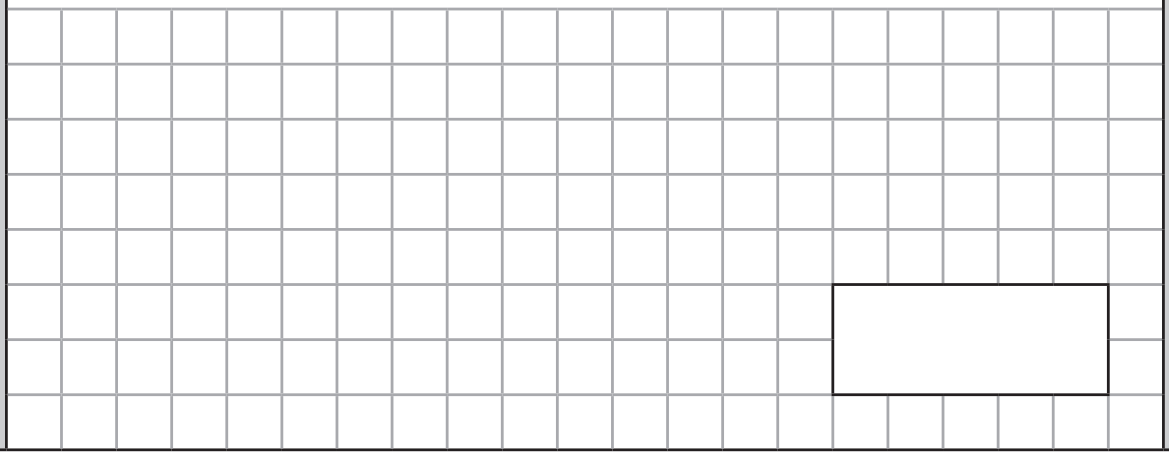
13 $9 \times 4 \times 8 =$



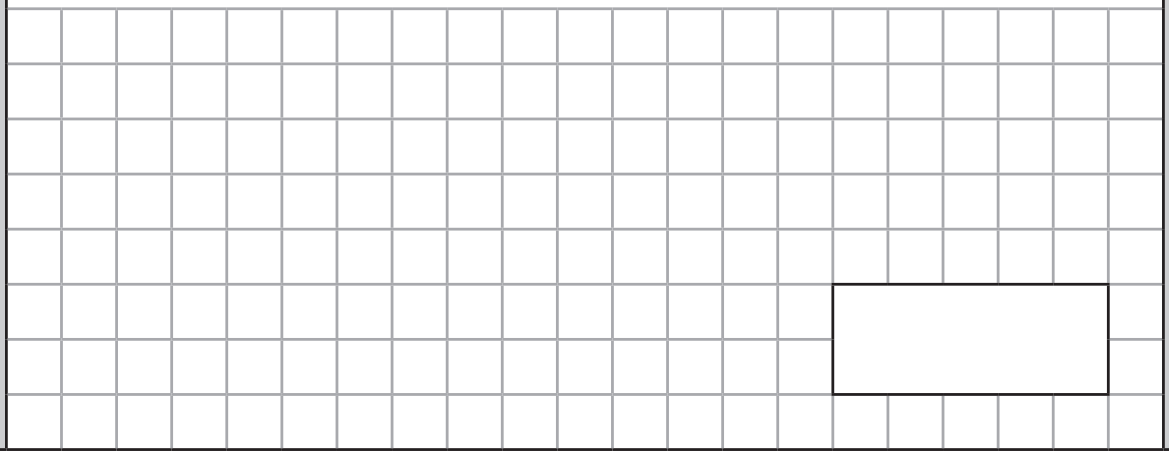
14 $6 \times 8 \times 4 =$



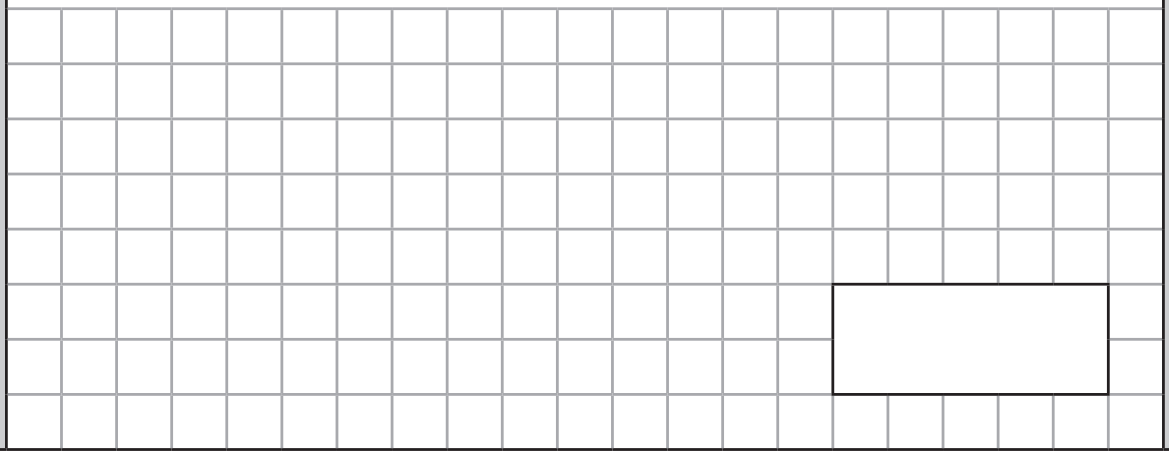
15 $3 \times 5 \times 6 =$



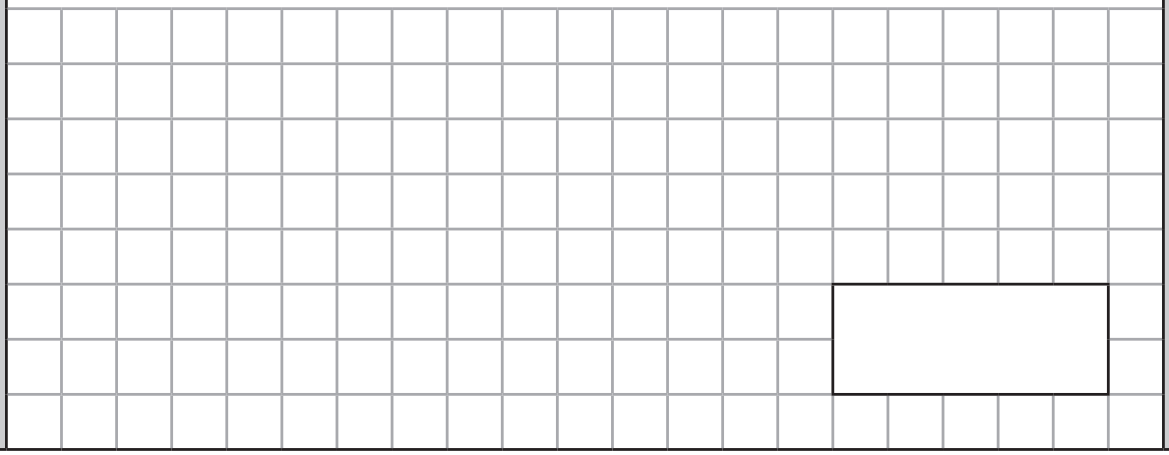
16 $2 \times 5 \times 7 =$



17 $8 \times 7 \times 4 =$

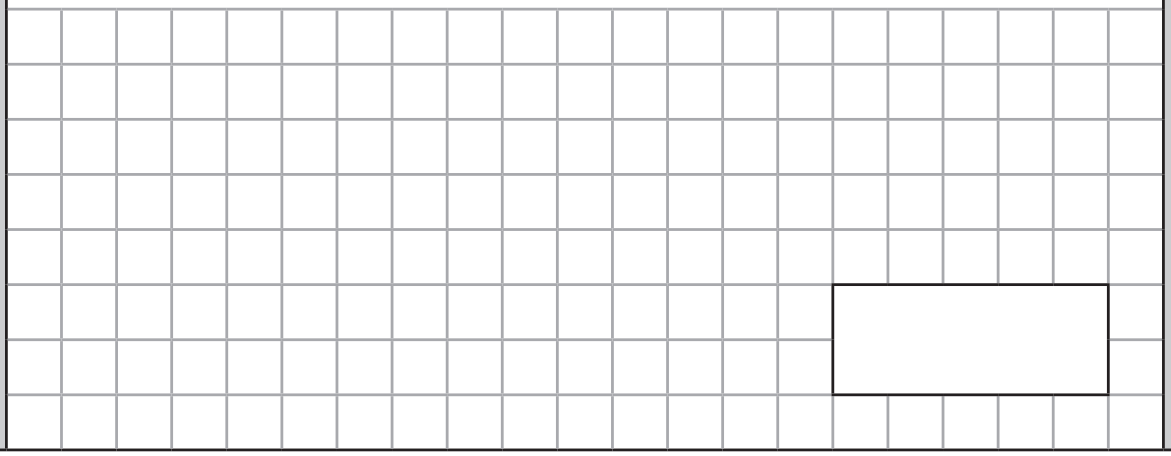


18 $7 \times 8 \times 3 =$

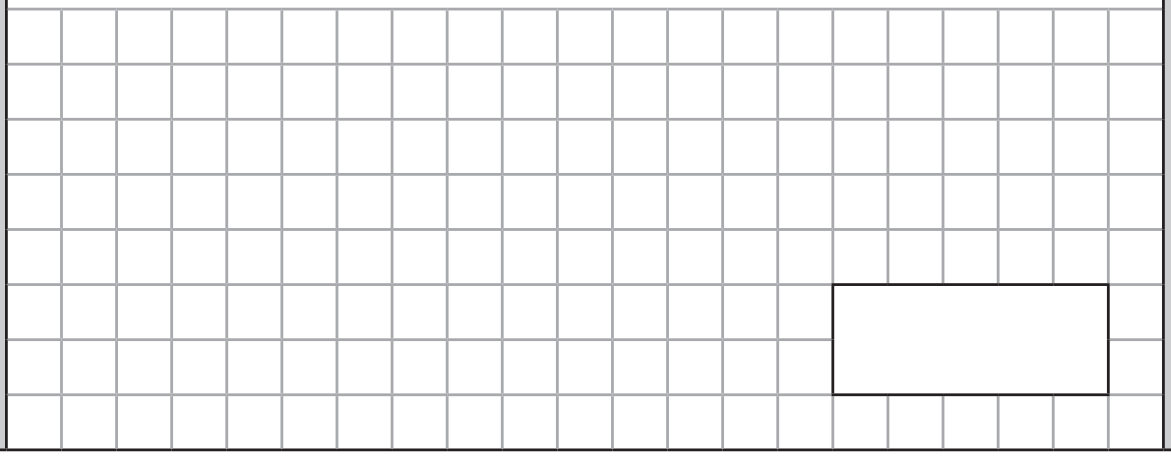


Multiplying using formal written methods.

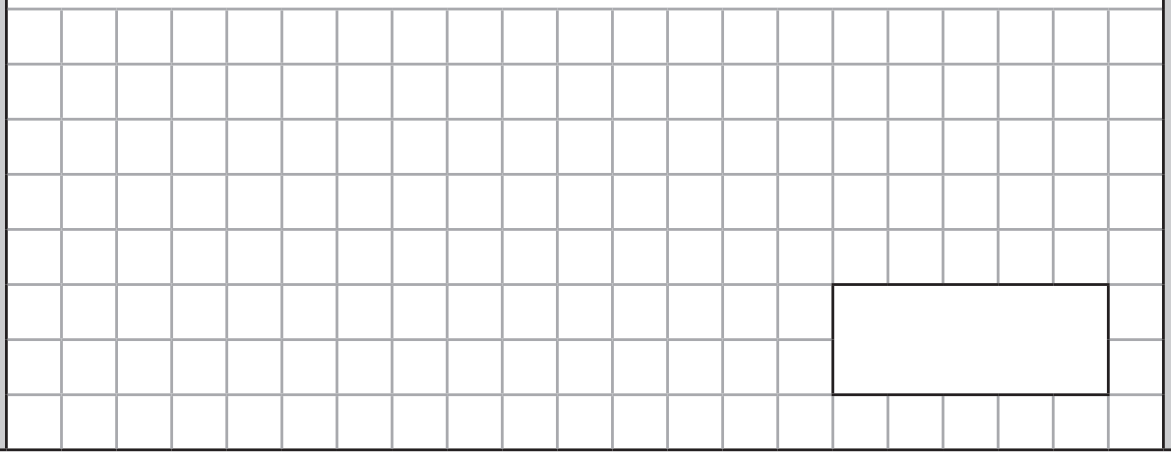
19 48 × 5 =



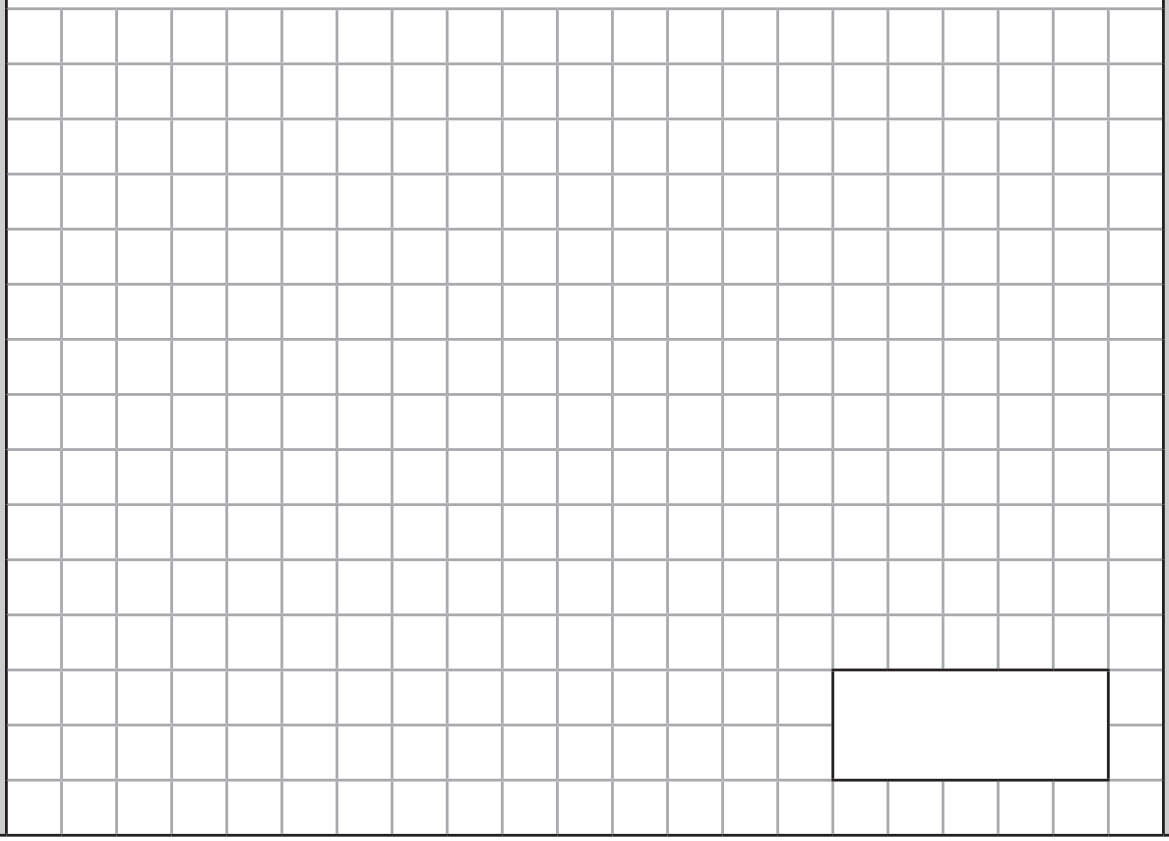
20 57 × 4 =



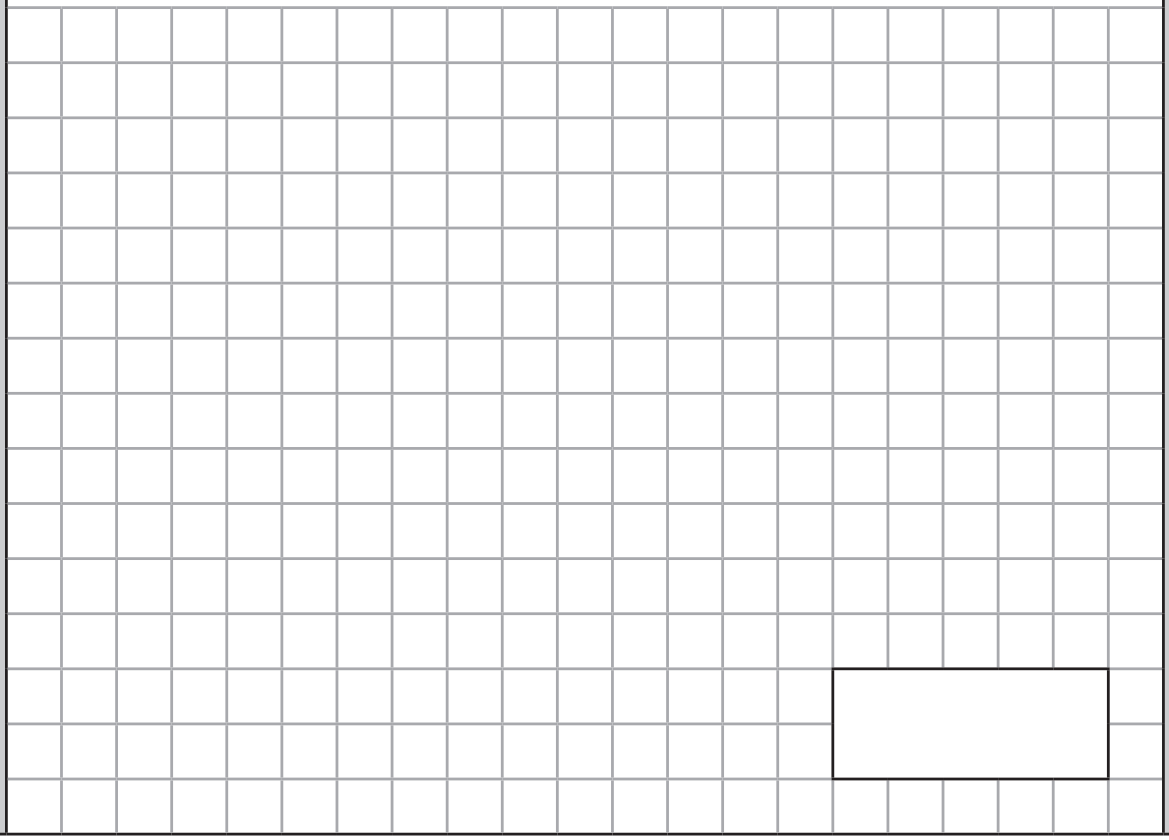
21 37 × 8 =



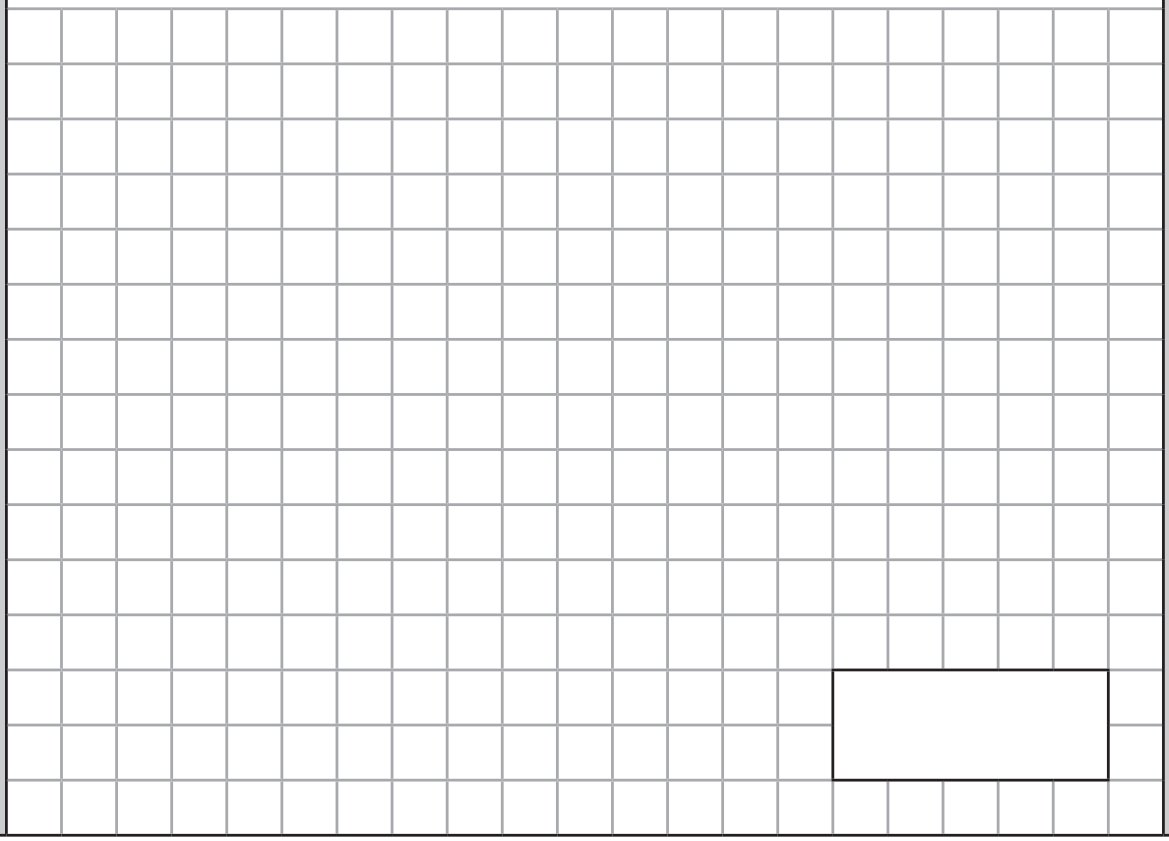
22 472 × 68 =



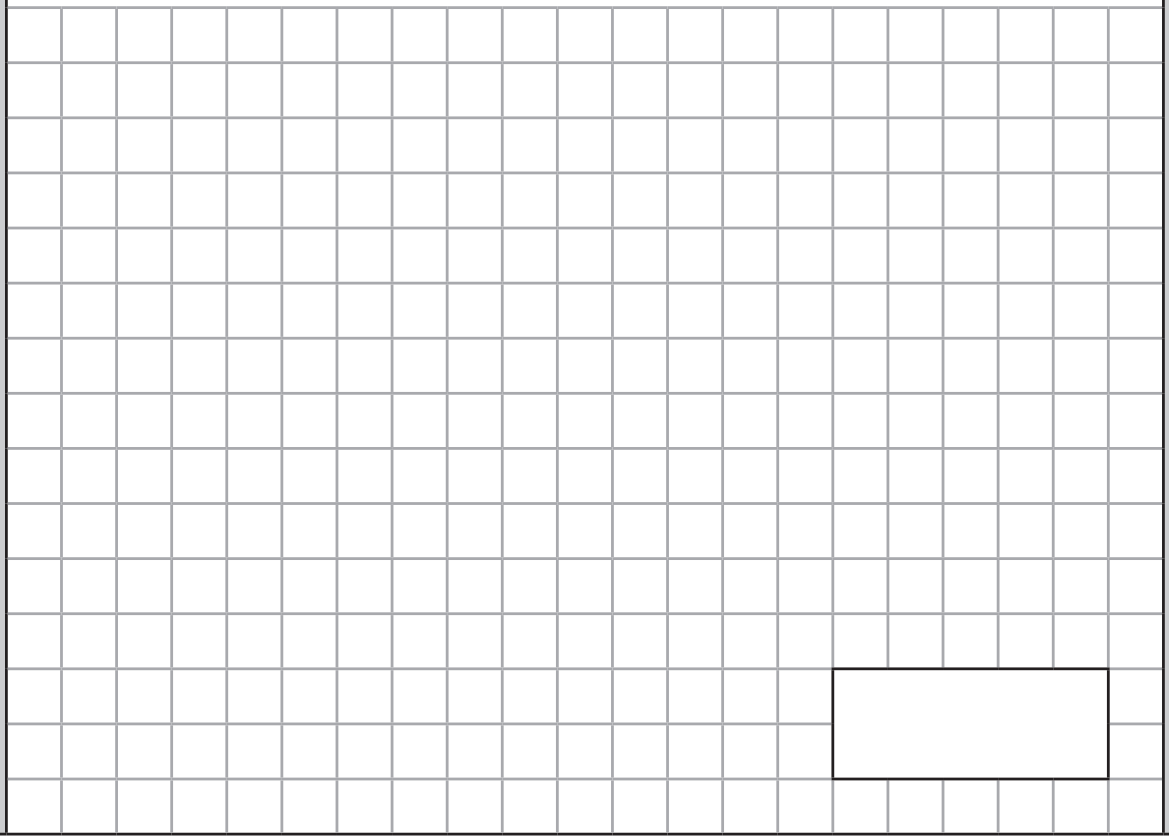
23 593 × 34 =



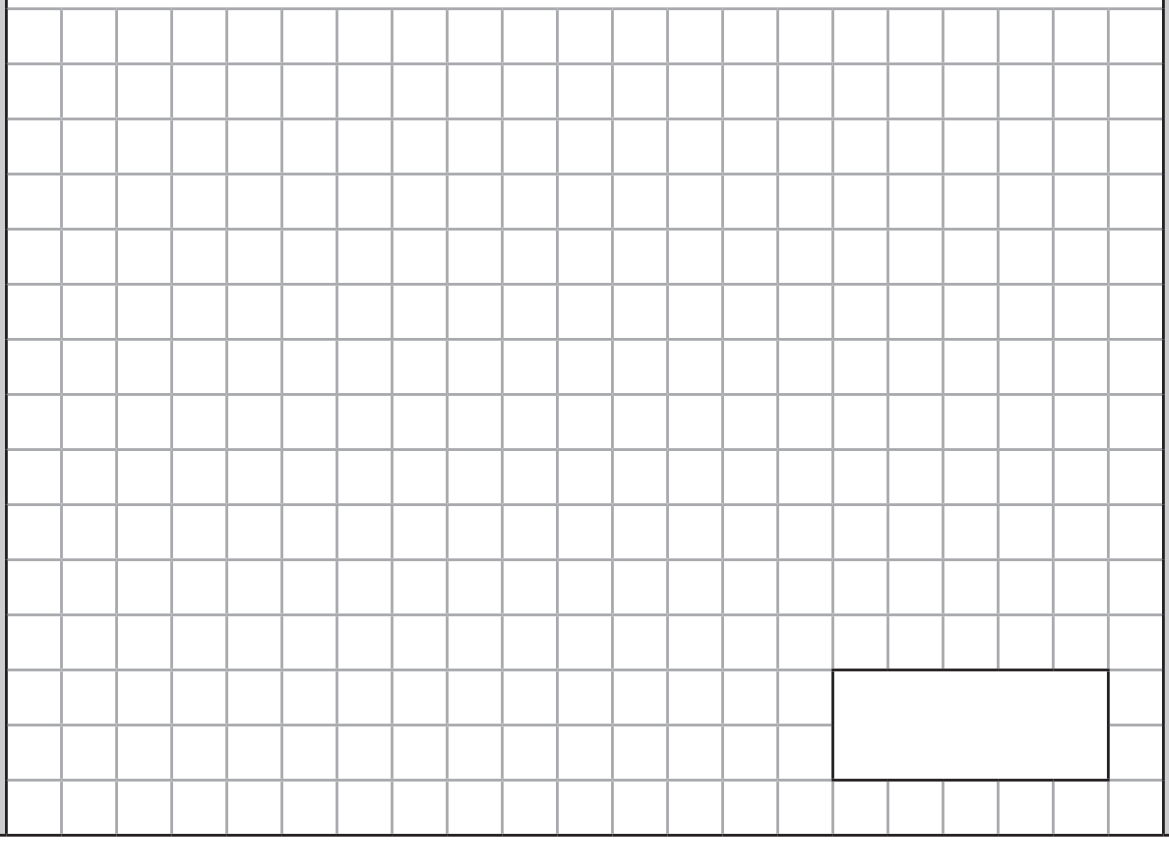
24 772 × 87 =



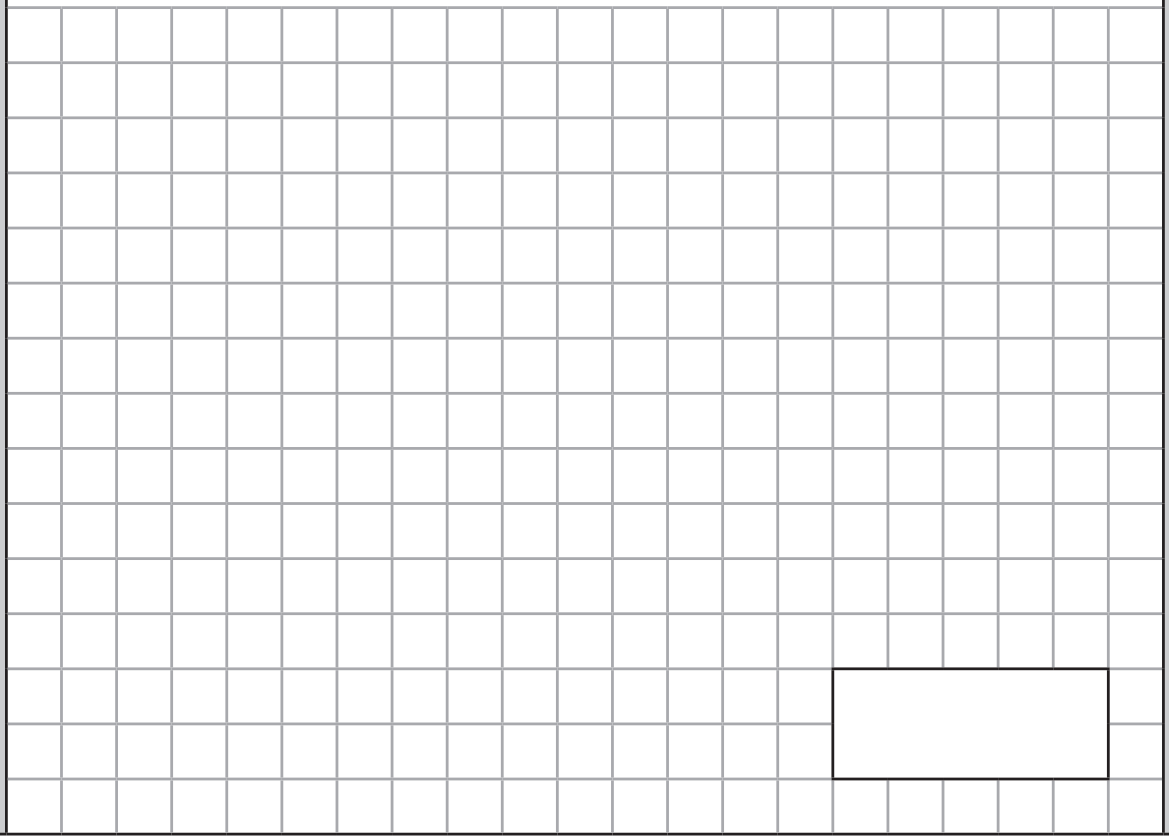
25 2288 × 14 =



26 3725 × 21 =

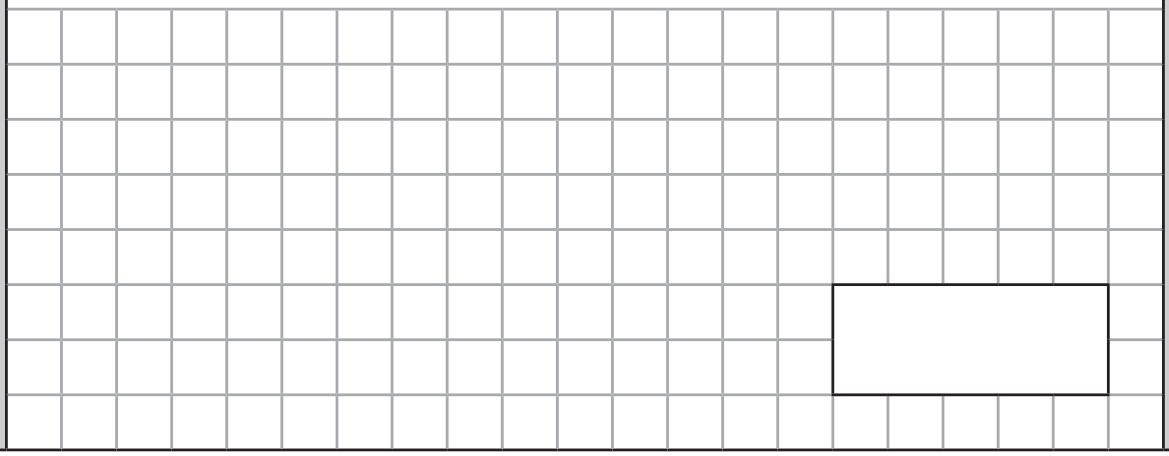


27 2749 × 26 =

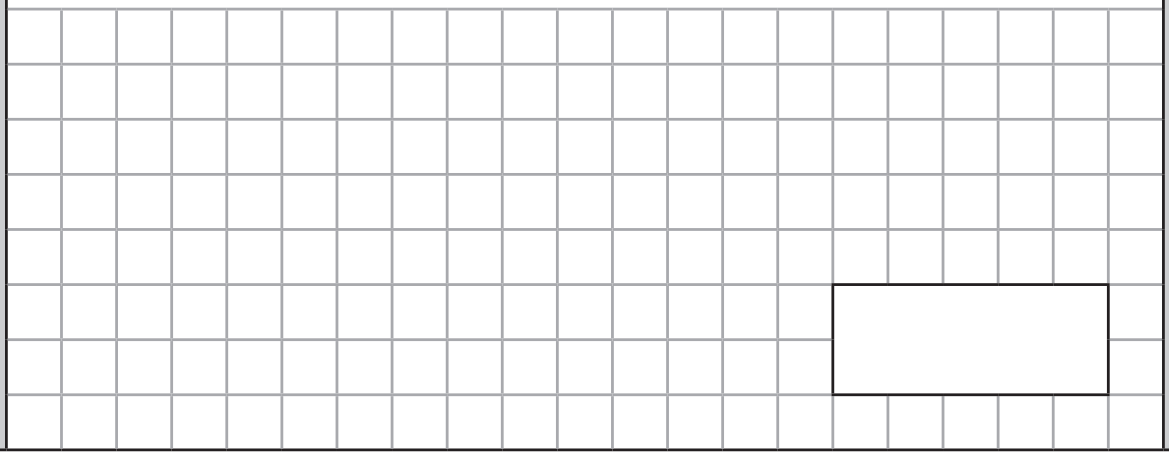


Dividing using formal written methods.

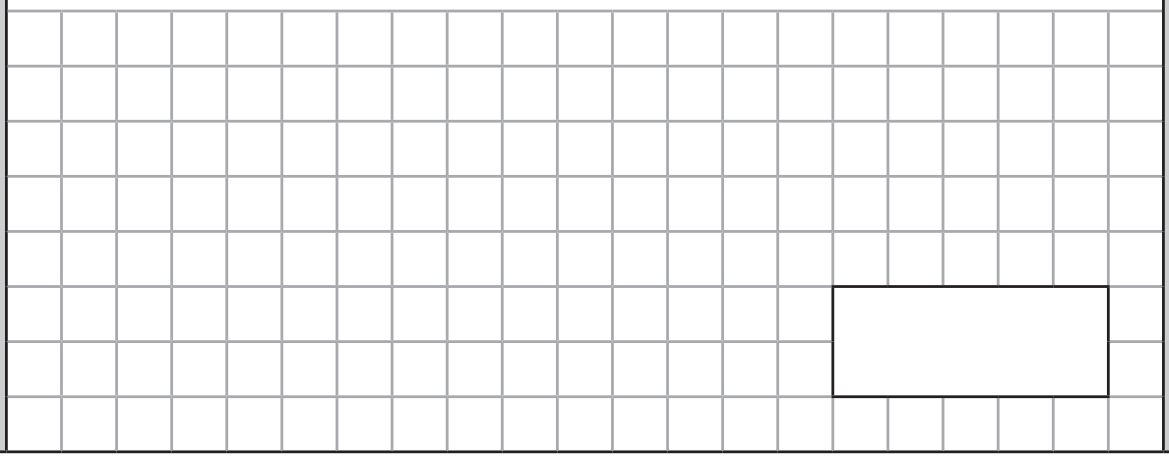
28 272 ÷ 4 =



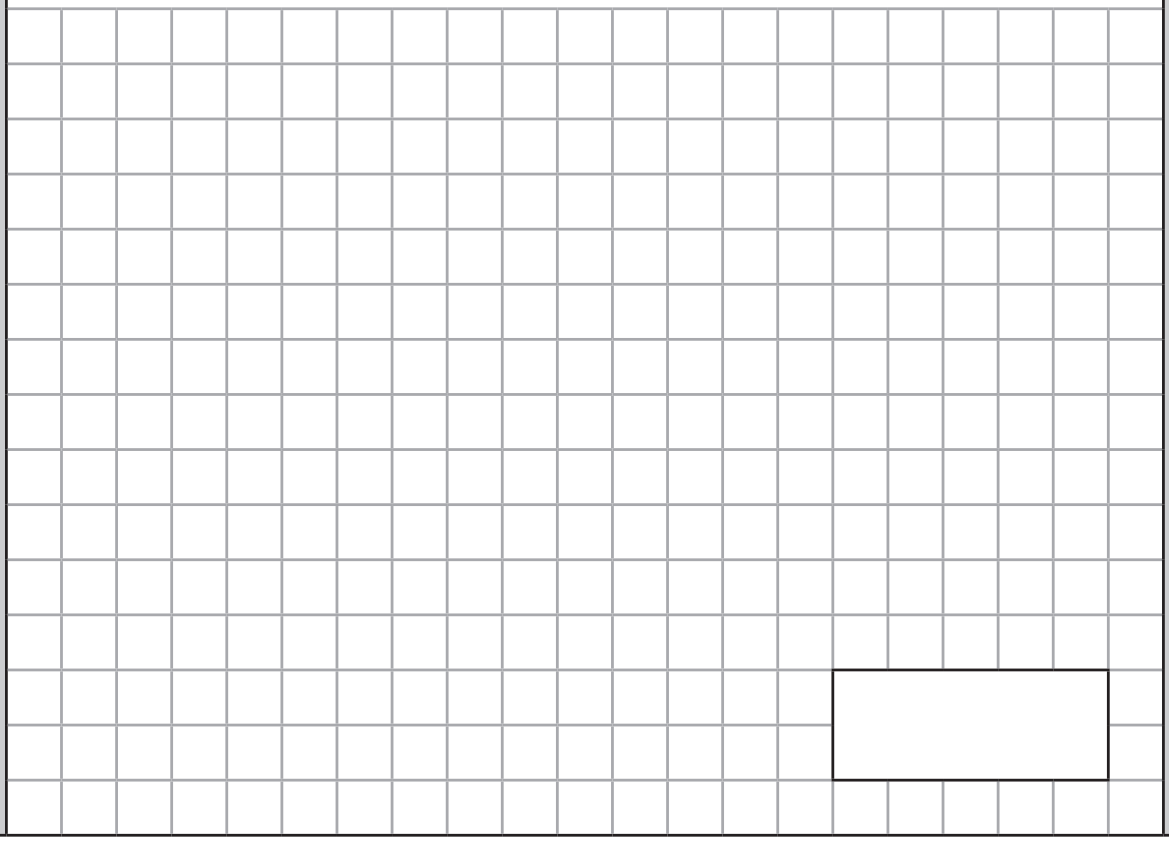
29 696 ÷ 8 =



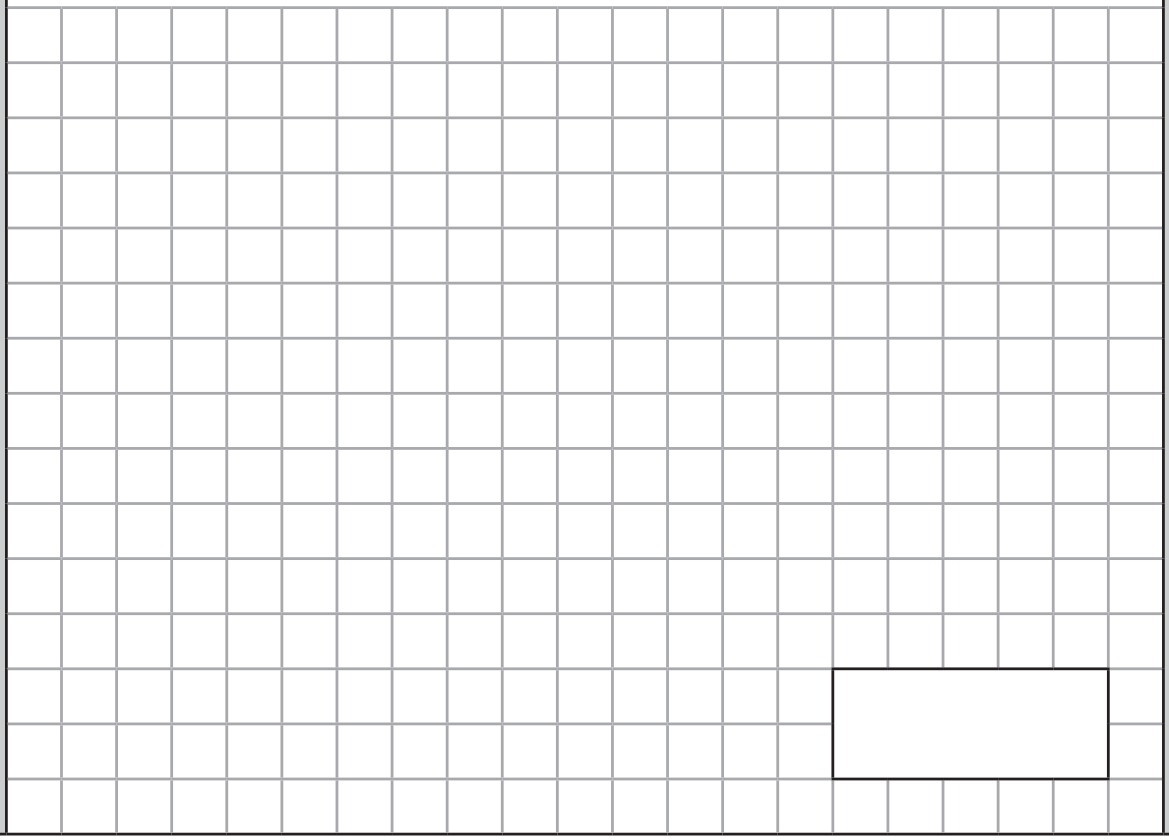
30 972 ÷ 9 =



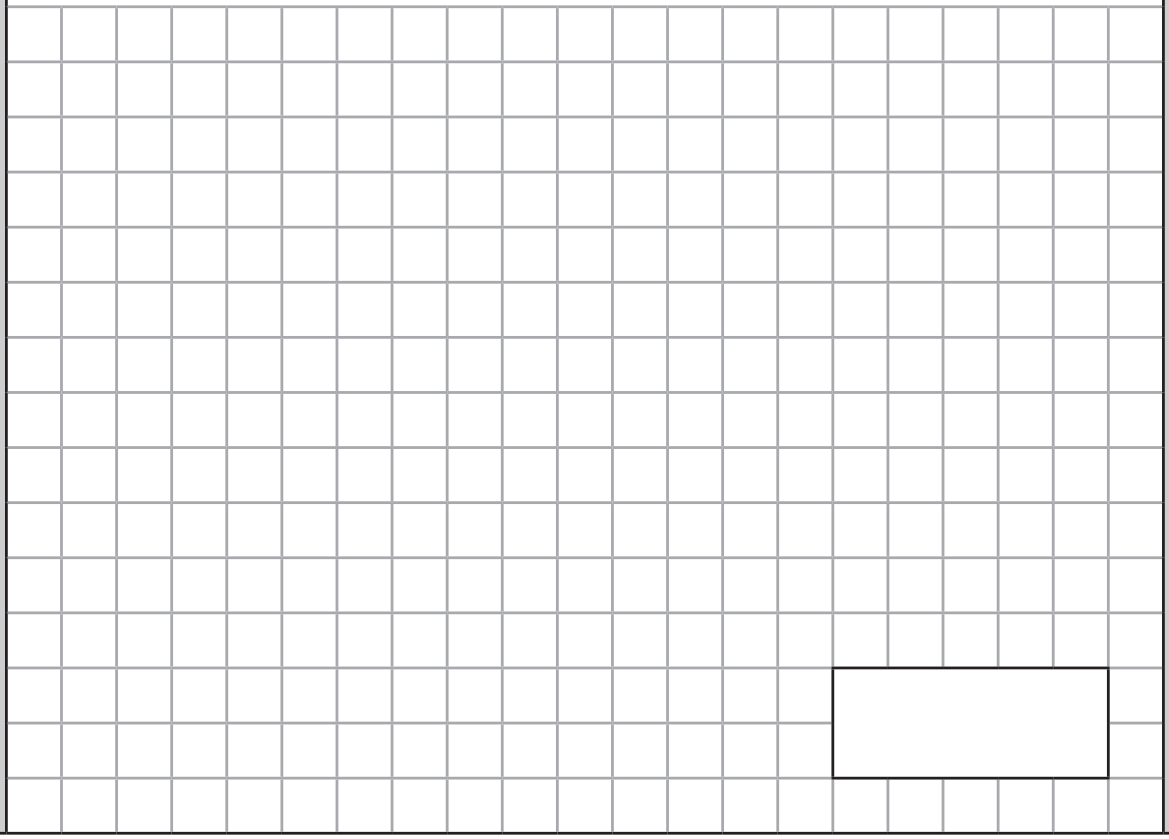
31 $322 \div 23 =$



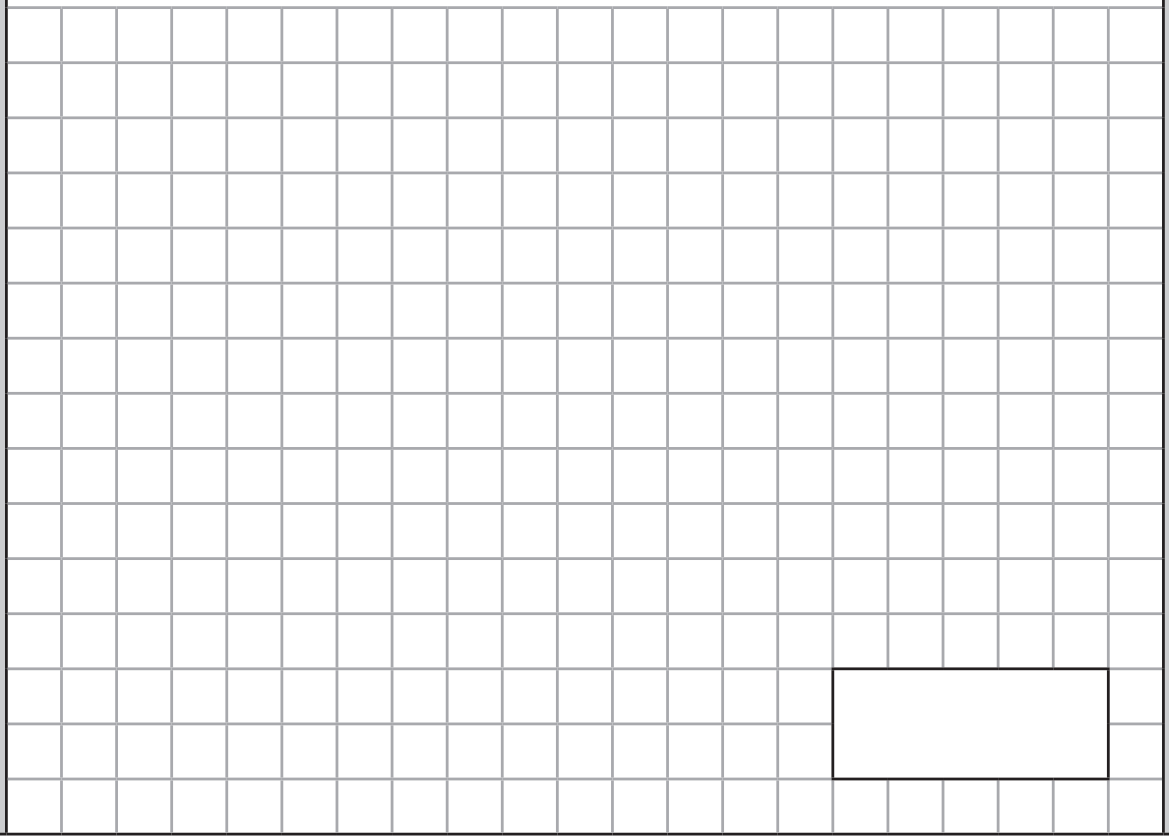
32 $403 \div 31 =$



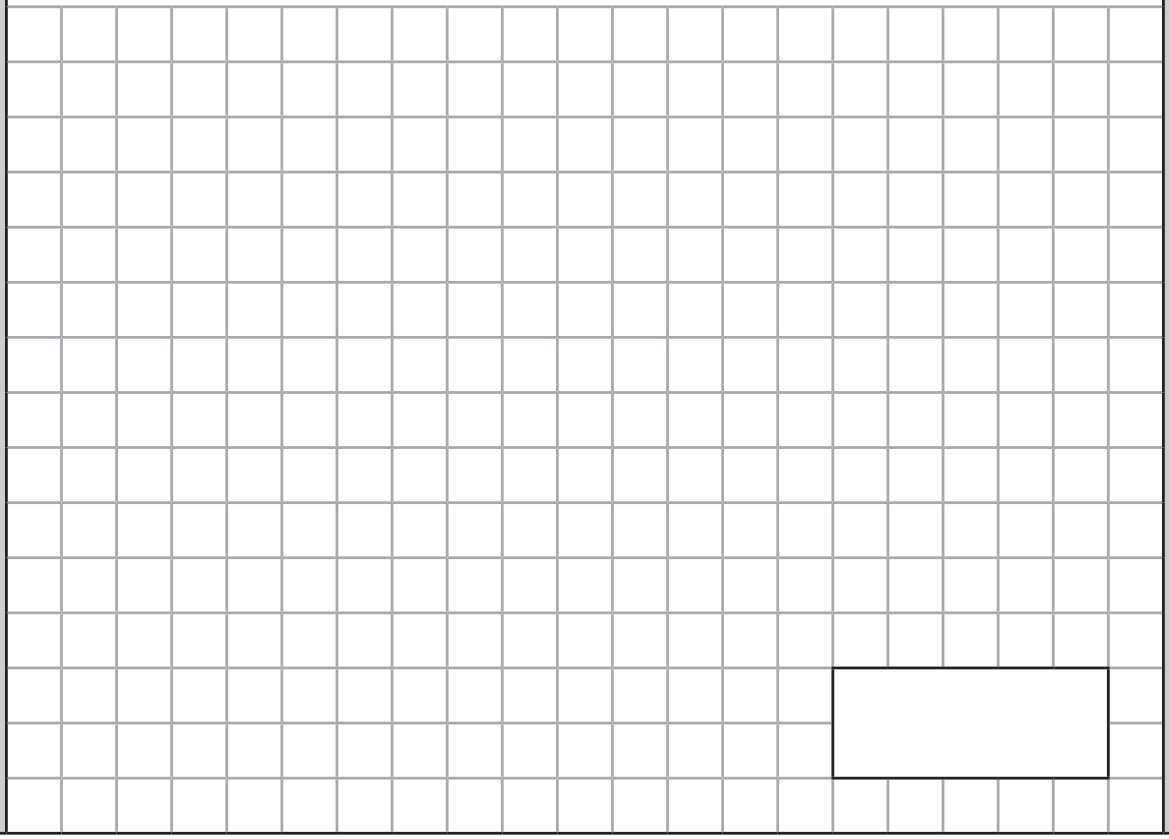
33 $297 \div 27 =$



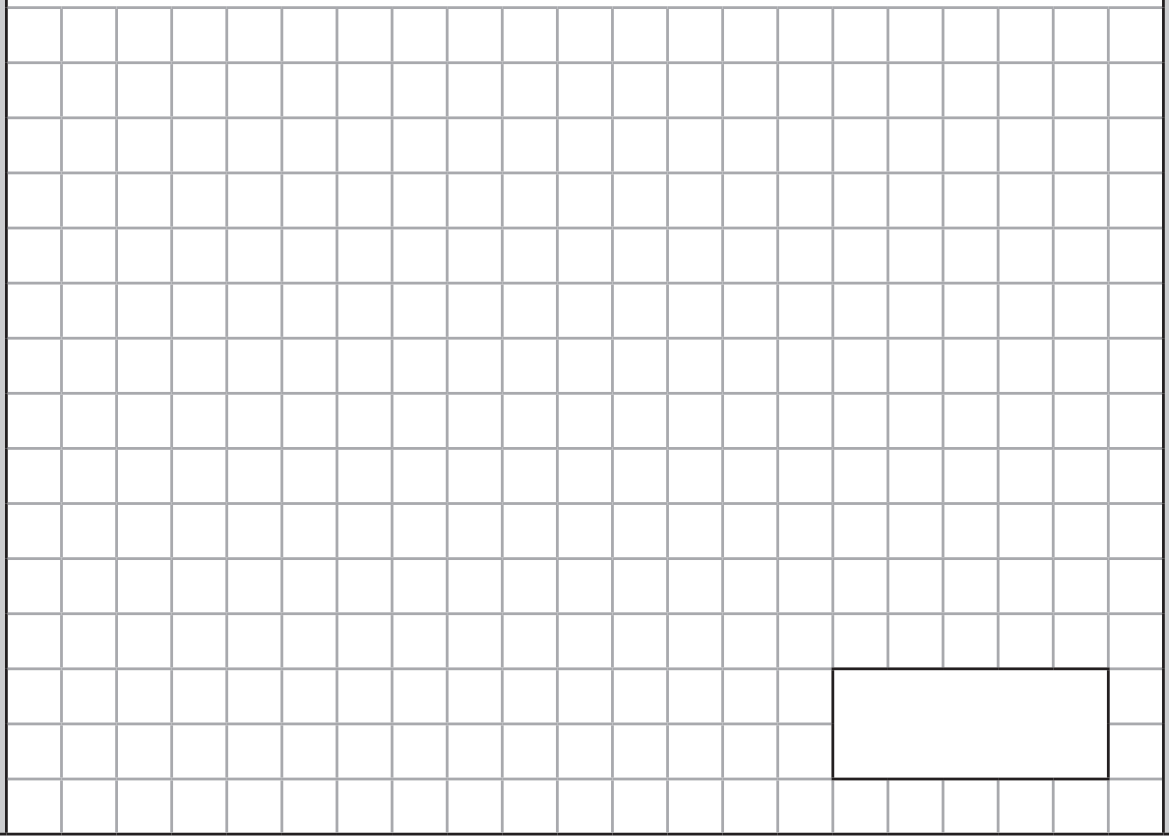
34 $1869 \div 89 =$



35 $2232 \div 93 =$



36 $5256 \div 73 =$



Year 6 Arithmetic Quiz 3: Answers

1. 9

2. 25

3. 49

4. 8

5. 27

6. 125

7. 78

8. 1045

9. 0

10. 0

11. 61

12. 261

13. 288

14. 192

15. 90

16. 70

17. 224

18. 168

19. 240

20. 228

21. 296

22. 32096

23. 20162

24. 67164

25. 32032

26. 78225

27. 71474

28. 68

29. 87

30. 108

31. 14

32. 13

33. 11

34. 21

35. 24

36. 72

Year 6 Arithmetic Quiz 3

Multiply by 0 and 1, dividing by 1

Multiply any number by 0, and the answer is 0.

51 × 0 = 0

Multiply any number by 1, and the answer is the number.

51 × 1 = 51

Divide any number by 1, and the answer is the number.

51 ÷ 1 = 51

Multiplying 3 numbers

The numbers can be multiplied in any order. Multiply 2 numbers, then multiply the answer by the other number. This can be useful in making the subsequent calculation easier.

Multiply first

7 × 2 × 4 = 28 × 2 = 56

Multiplication using formal methods

Multiplication by 1 digit

1. Multiply 9 × 6 = 54. Write the 4 in the ones place and the 5 (tens) under the tens place. (It can sometimes be helpful to label the columns to label the columns 1, T, H)
2. Multiply 4 × 6 = 24 (4 tens x 6 tens = 24 tens = 240). Add the carried 5 tens. 24 + 5 = 29 (24 tens + 5 tens = 29 tens). Write the 9 in the tens and 2 in the hundreds place.

		4	9	
	×		6	
	2	9	4	
		5		

Multiplication by 2 digits

1. Calculate 4716 × 4 and write the answer in the first line under the calculation. (It can sometimes be helpful to label the columns 1, T, H, Th, TTh.)
2. Multiply 6 × 4 = 24. Write 4 in the ones place and the 2 above the tens place.
3. Multiply 1 × 4 = 4 (1 ten x 4 ones = 4 tens). Add the 2 (tens), 4 + 2 = 6 (4 tens + 2 tens = 6 tens) and write 6 in the tens place.
4. Multiply 7 × 4 = 28 (7 hundreds x 4 ones = 28 hundreds). Write the 8 in the hundreds place and the 2 above the thousands.

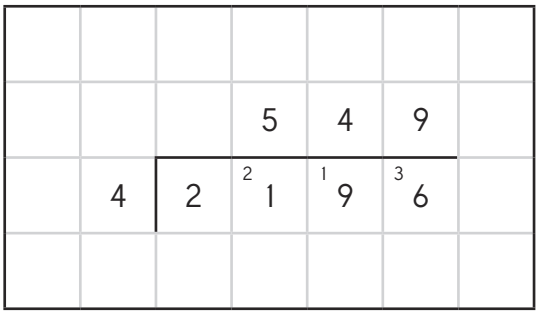
		✗	✗	✗	✗		
			4	7	1	6	
					2	4	
		1	8	8	6	4	
		9	4	3	2	0	
	1	1	3	1	8	4	
		1	1				

5. Multiply 4 × 4 = 16 (4 thousands x 4 ones = 16 thousands). Add the carried 2 (thousands), 16 + 2 = 18 (16 thousand + 2 thousand = 18 thousand). Write 18 in the ten thousands and thousands places.
6. Repeat the process with 4716 × 20 by writing the 0 in the ones place of the second line and multiplying 4716 × 2 = 9432. (Effectively multiplying by two then multiplying by 10.)
7. Add 18864 + 94320 = 113184

Division using formal methods

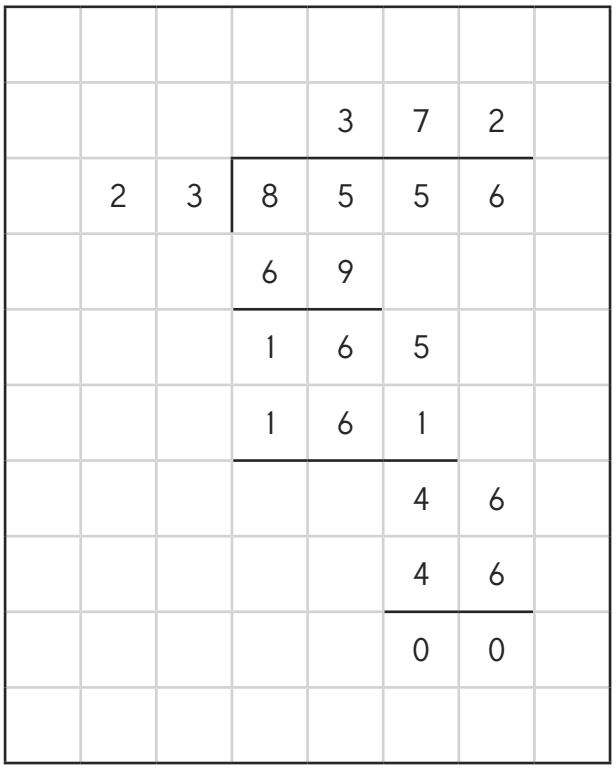
Short division

1. 2 ÷ 4 = 0 r 2. Write the 2 next to the 1 (hundred). (It can sometimes be helpful to label the columns 1, T, H, Th.)
2. 21 ÷ 4 = 5 r 1. Write the 5 in the hundreds place of the answer and the remaining 1 next to the 9.
3. 19 ÷ 4 = 4 r 3. Write the 4 in the tens place of the answer and the remaining 3 next to the 6.
4. 36 ÷ 4 = 9. Write the 9 in the ones place of the answer.



Long division

1. 85 ÷ 23 = 3. Write the 3 in the hundreds place of the answer. Write 69 (23 × 3) under the 85.
2. Subtract 85 – 69 = 16. Bring the 5 from the question down to make 165.
3. 165 ÷ 23 = 7. Write the 7 in the tens place of the answer. Write 161 (23 × 7) under the 165.
4. Subtract 165 – 161 = 4. Bring the 6 down from the question to make 46.
5. 46 ÷ 23 = 2. Write the 2 in the ones place of the answer.
   (It can sometimes be helpful to make rough notes of the key multiples of the divisor from which further multiples can be derived. For example, 23 x 2 = 46; 23 x 5 = 115.)



Year 6 Arithmetic Quiz 4

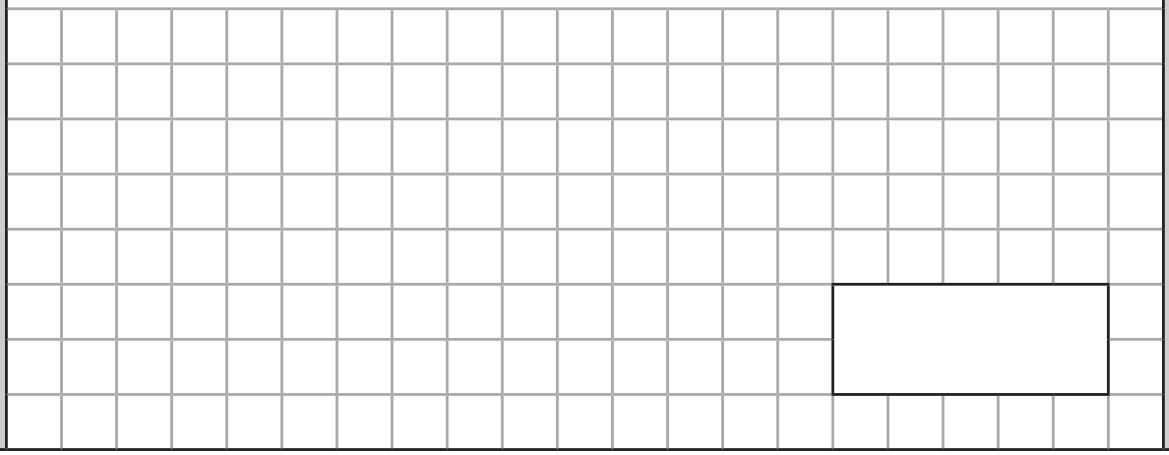
Add and Subtract Fractions.

1 $\frac{3}{10} + \frac{1}{10} =$

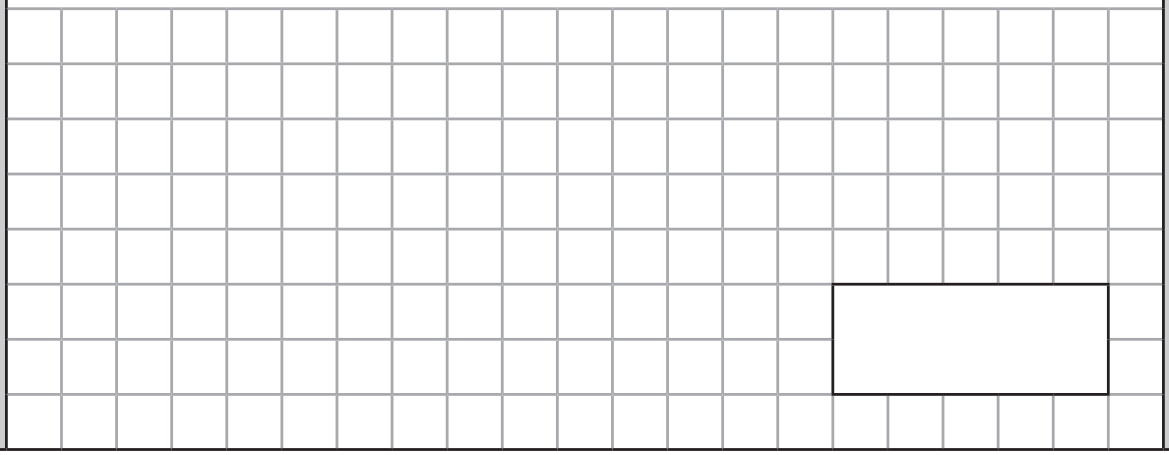
2 $\frac{1}{8} + \frac{3}{8} =$

3 $\frac{7}{10} - \frac{1}{10} =$

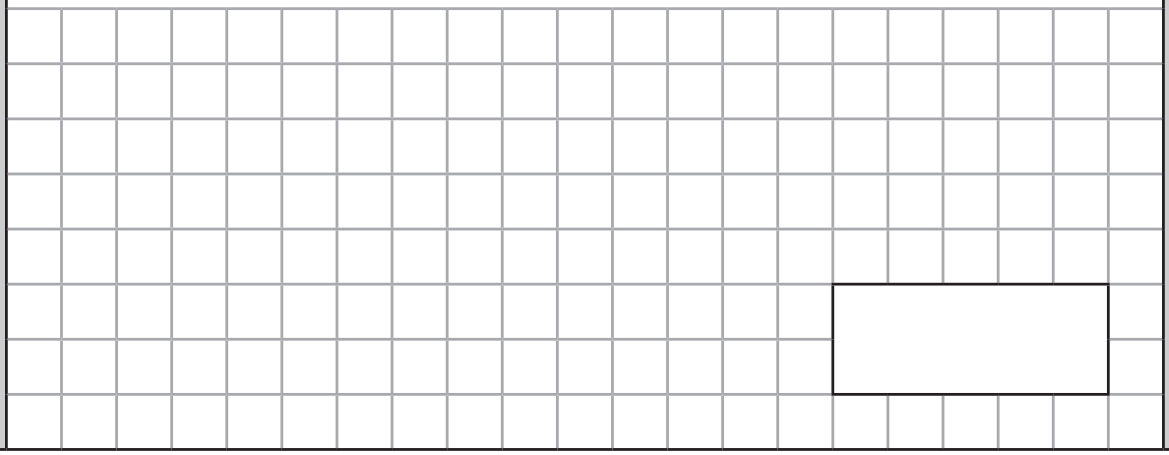
4 $\frac{3}{8} - \frac{1}{8} =$



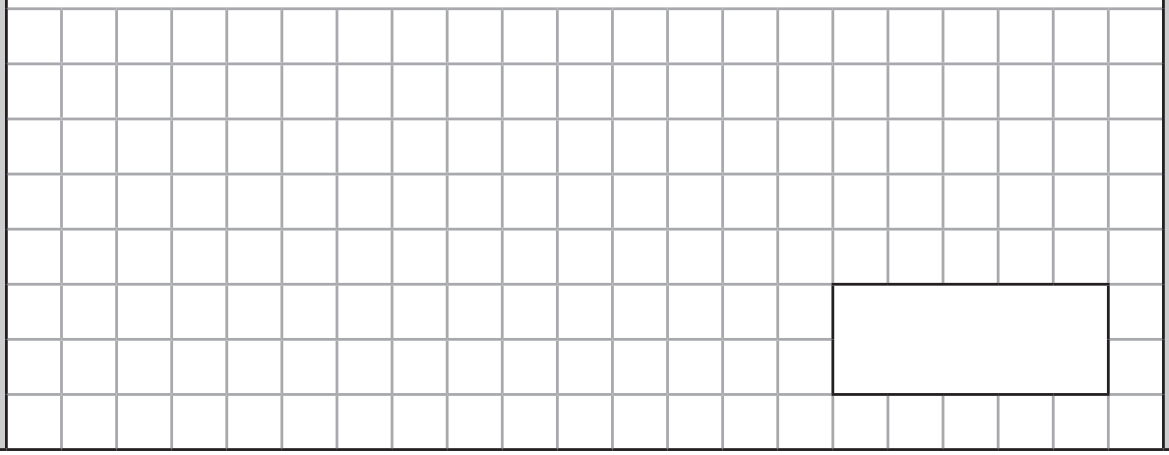
5 $\frac{3}{4} + \frac{5}{8} =$



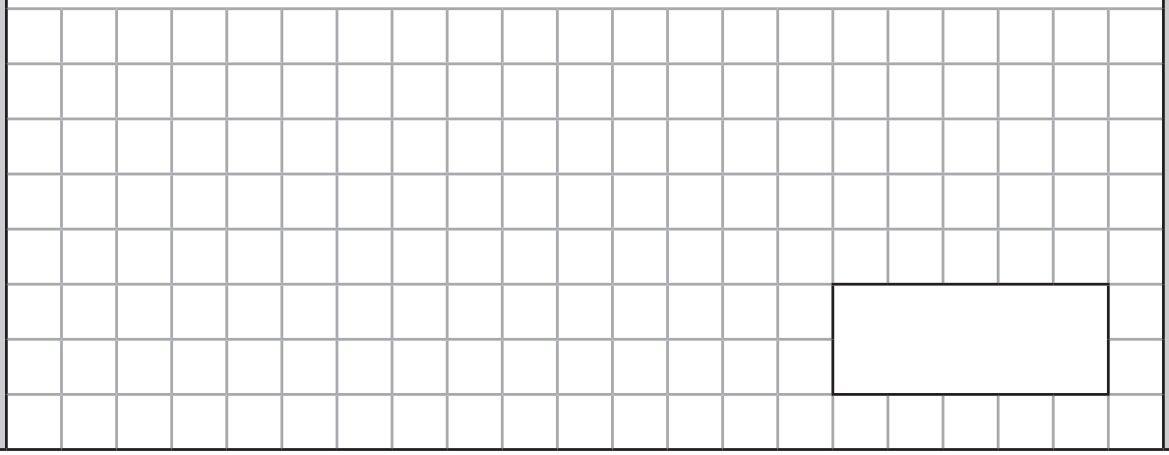
6 $\frac{2}{3} + \frac{1}{2} =$



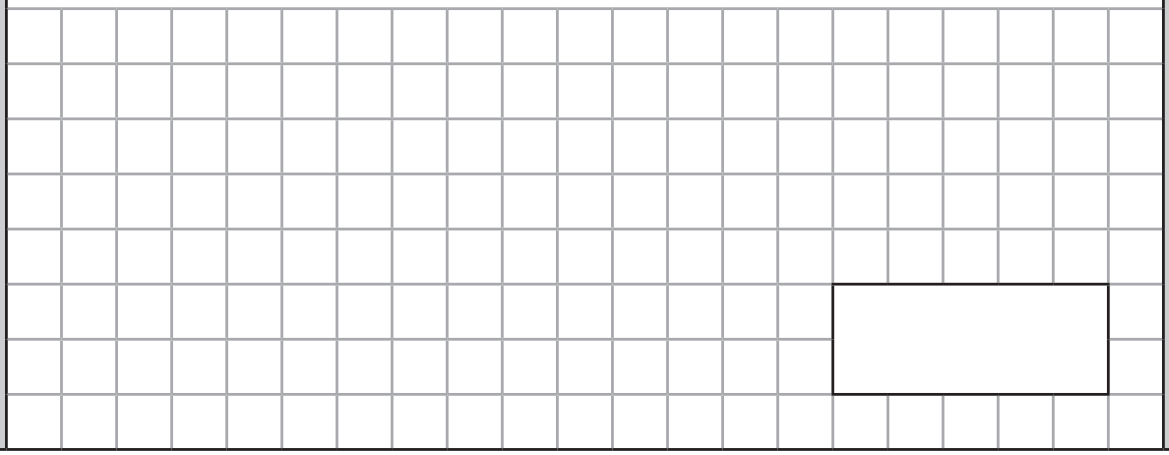
7 $\frac{7}{8} + \frac{4}{5} =$



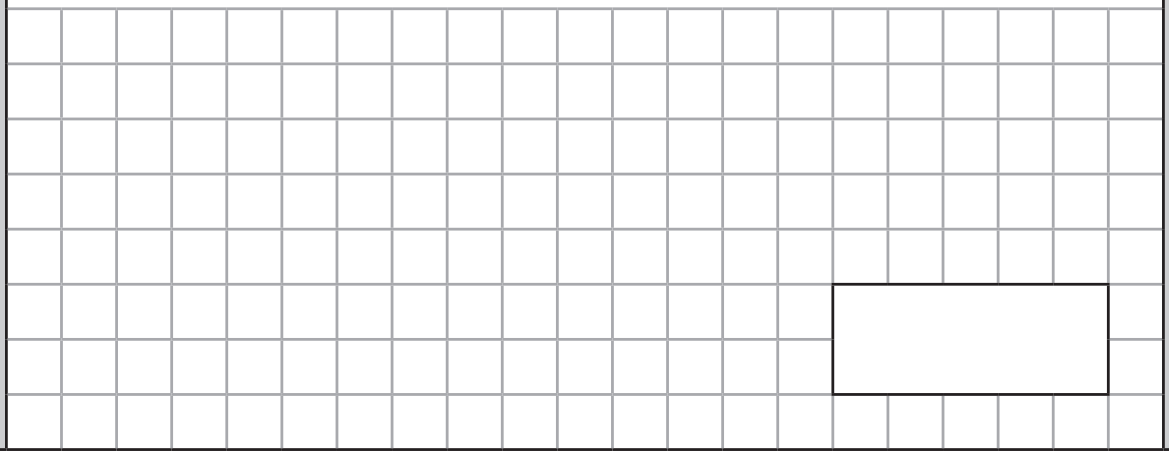
8 $\frac{9}{10} + \frac{1}{4} =$



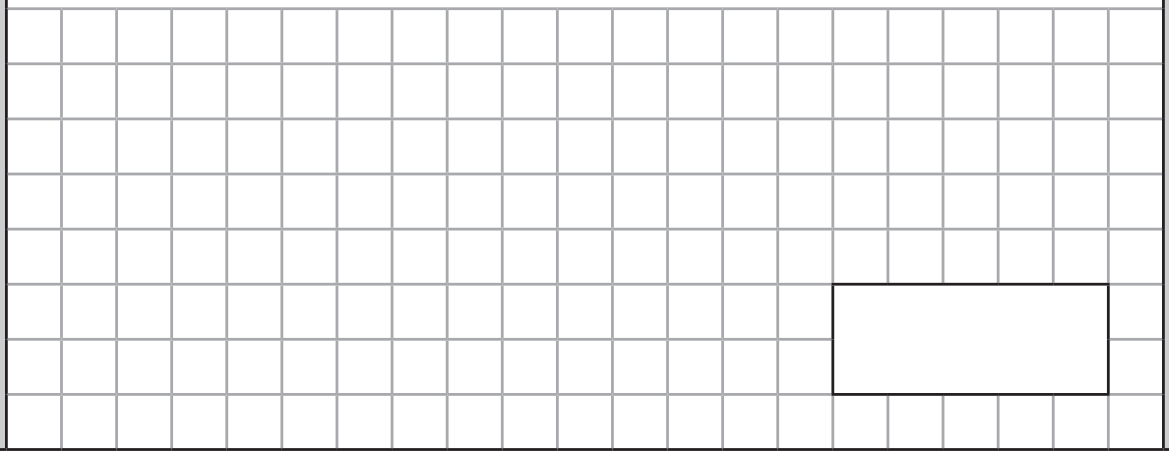
9 $\frac{3}{4} - \frac{1}{5} =$



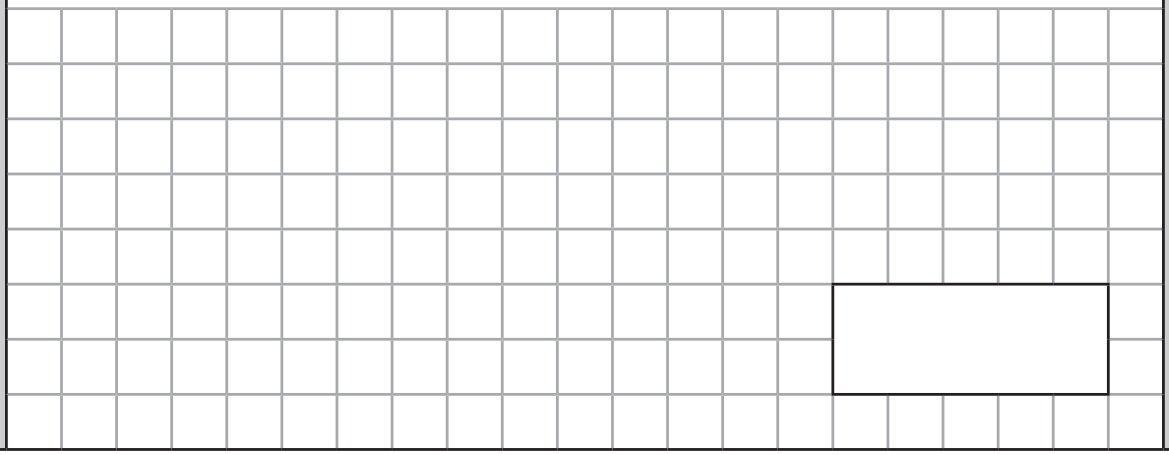
10 $\frac{5}{6} - \frac{1}{2} =$



11 $\frac{4}{9} - \frac{3}{8} =$

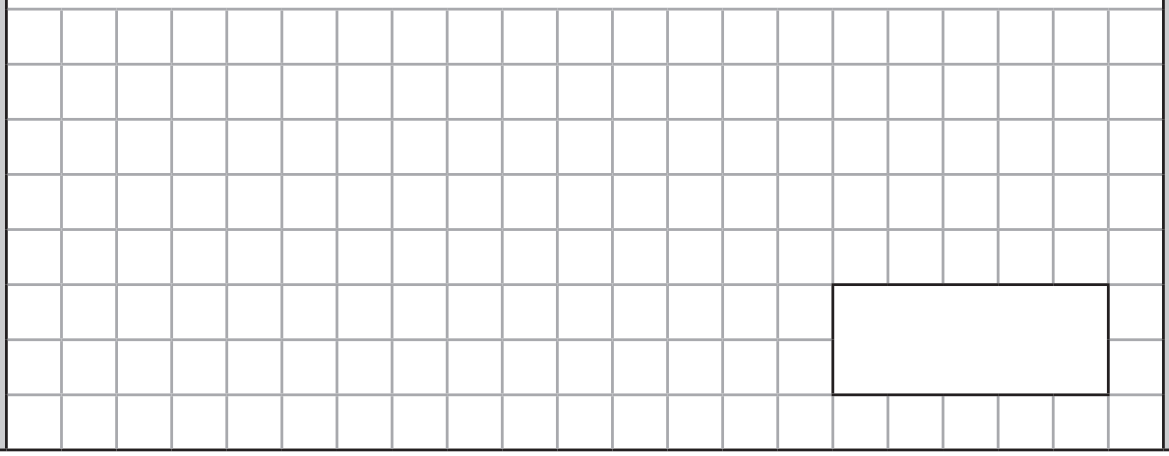


12 $\frac{4}{5} - \frac{1}{2} =$

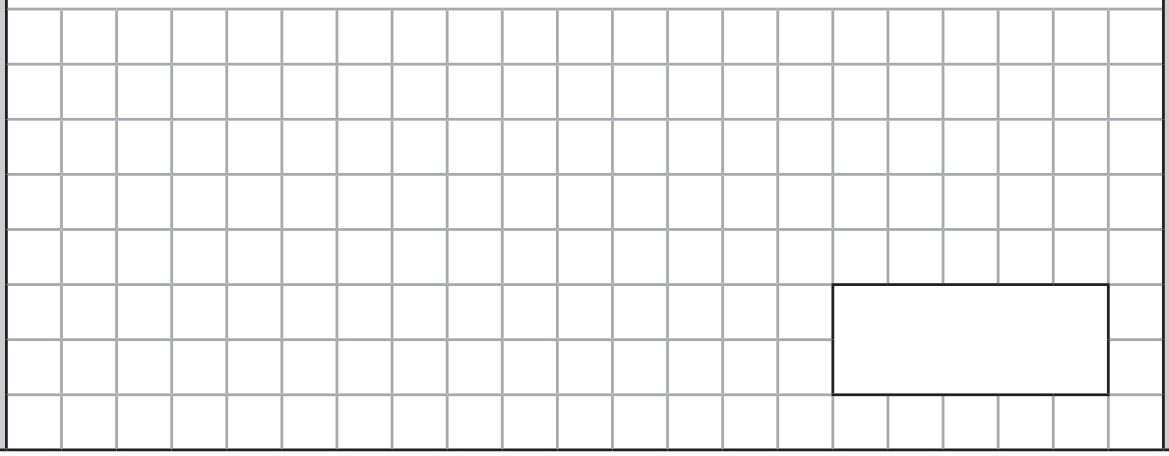


Multiply fractions by whole numbers and fractions.

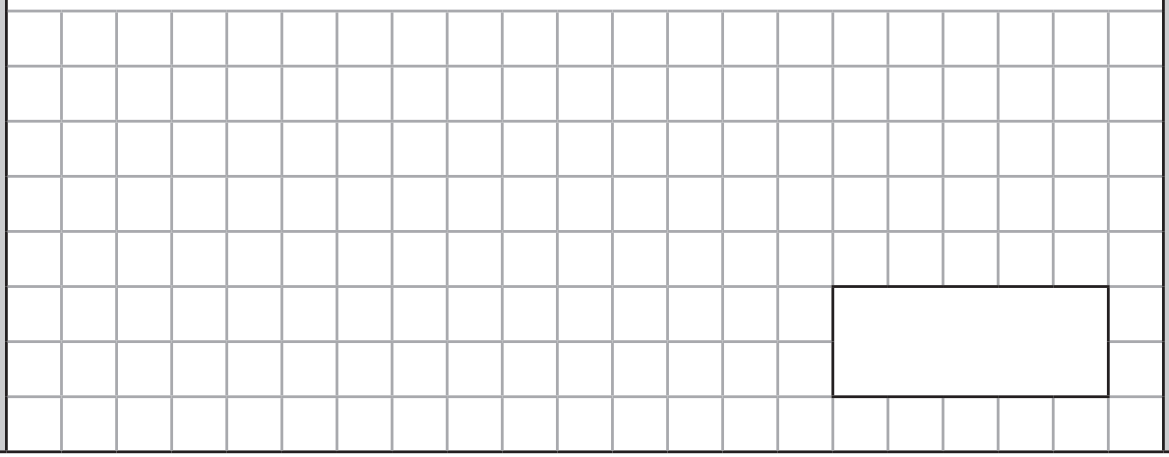
13 $4\frac{1}{3} \times 2 =$



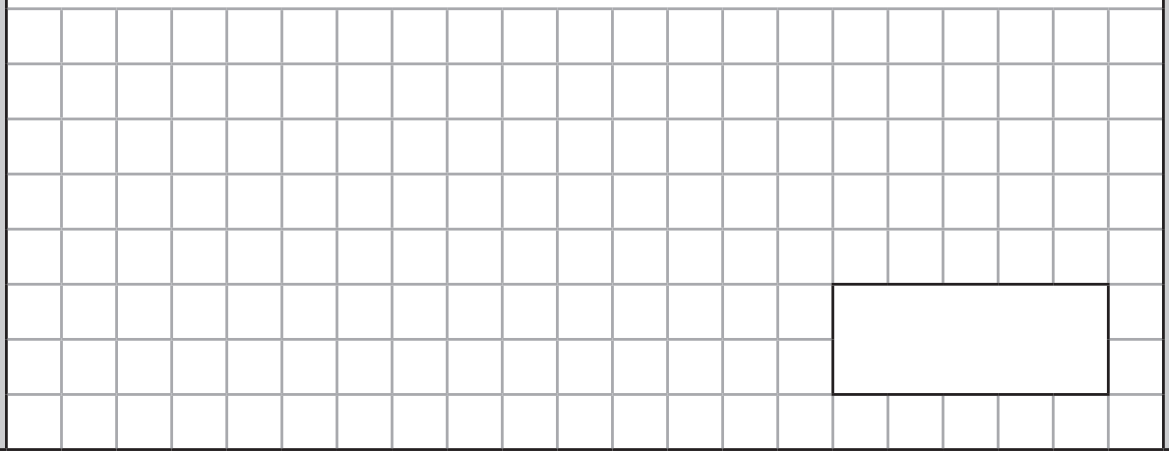
14 $6 \times 4\frac{1}{2} =$



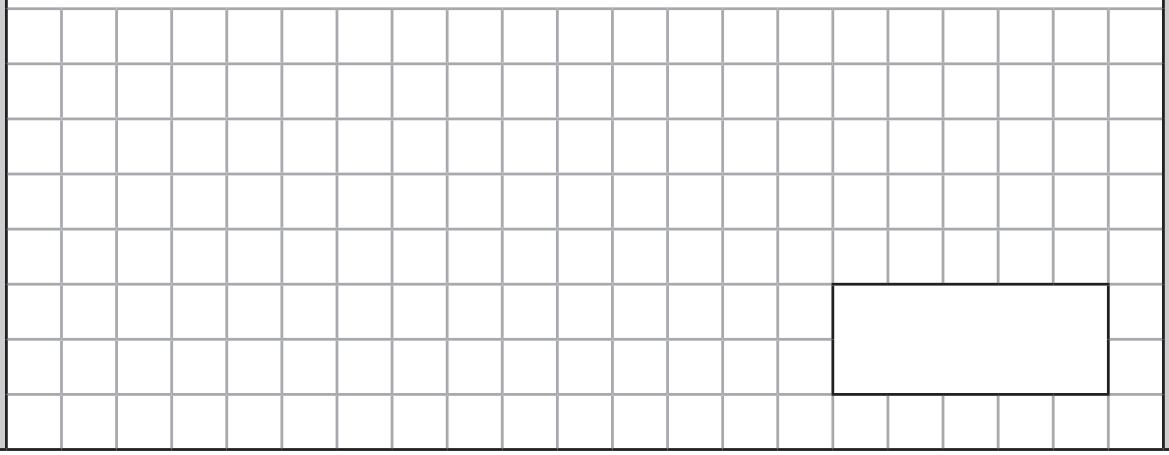
15 $5 \times 2\frac{1}{4} =$



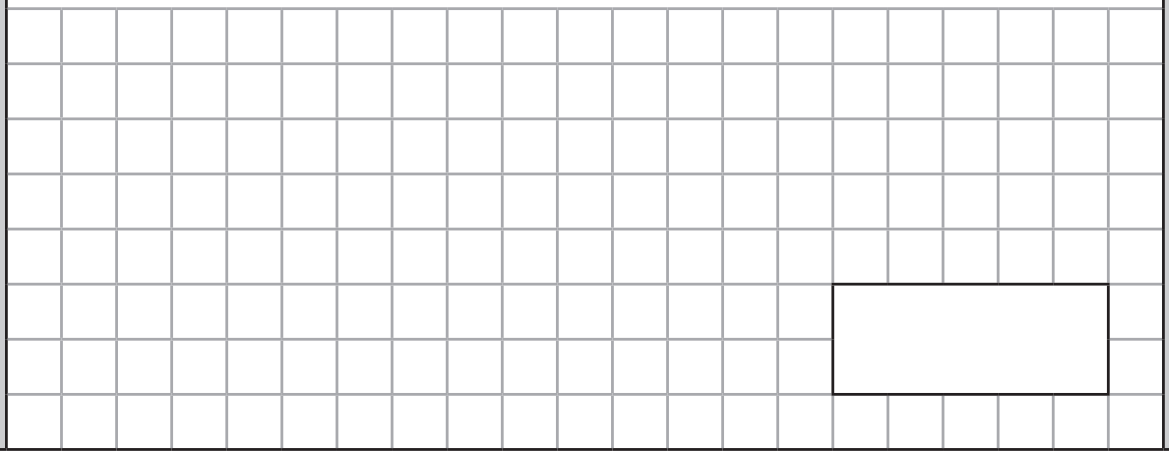
16 $3\frac{2}{5} \times 2 =$



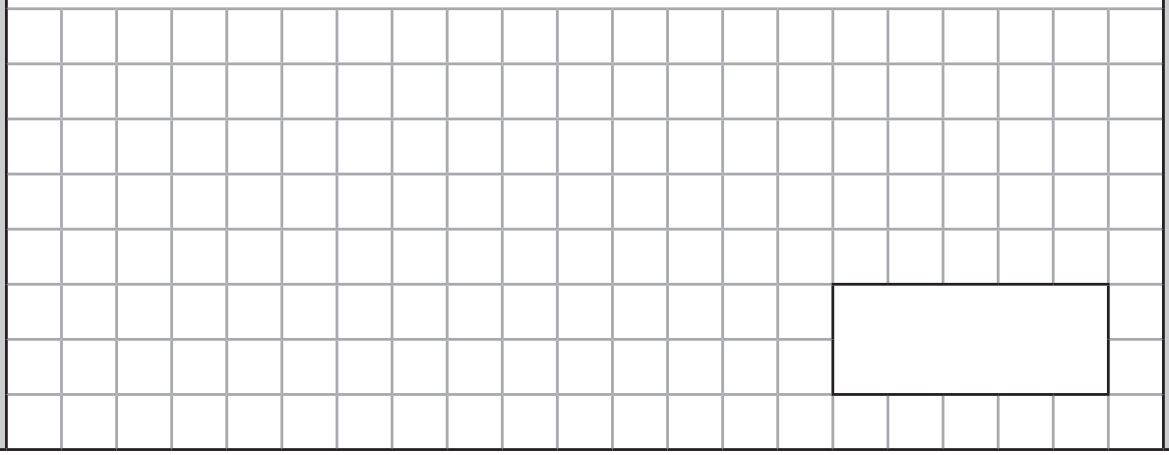
17 $5 \times 3\frac{5}{6} =$



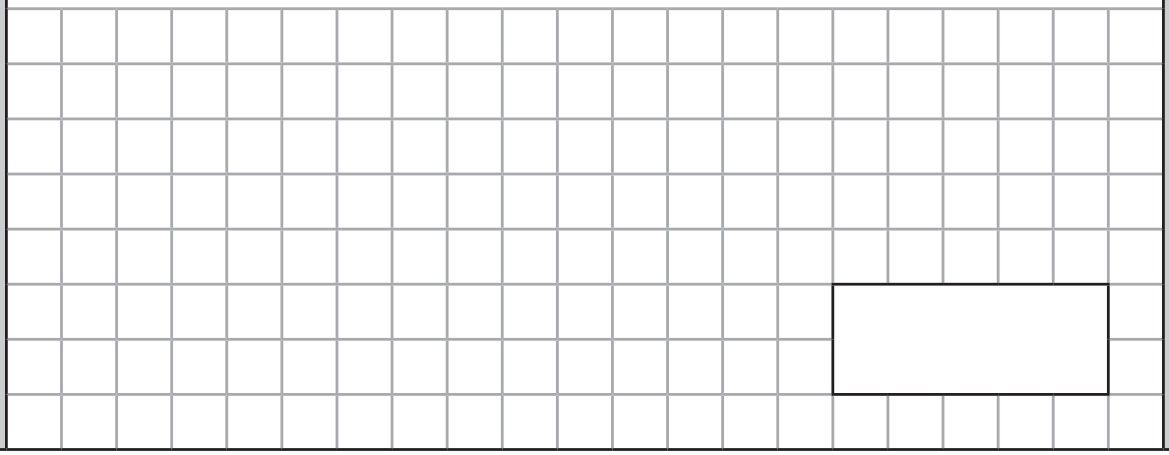
18 $3\frac{3}{4} \times 2 =$



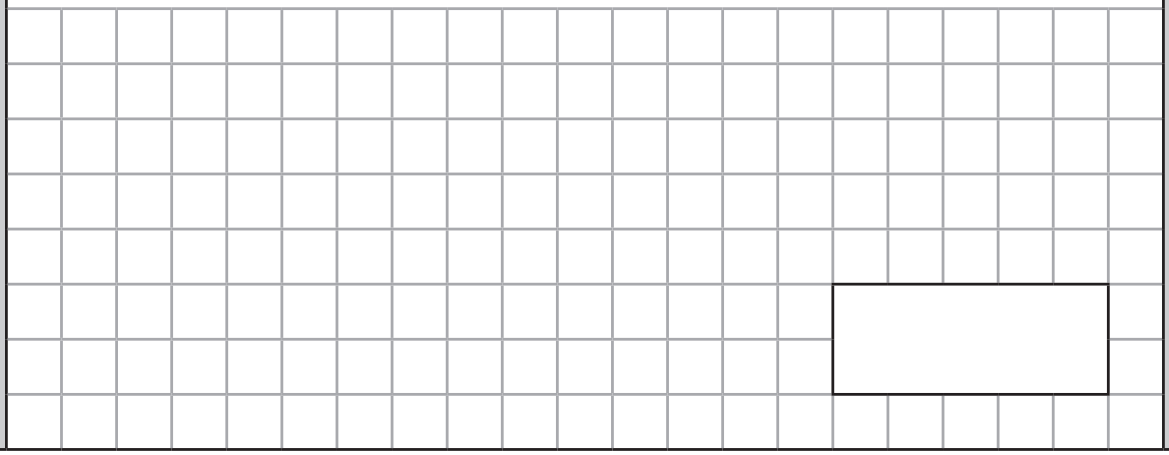
19 $\frac{1}{4} \times \frac{1}{5} =$



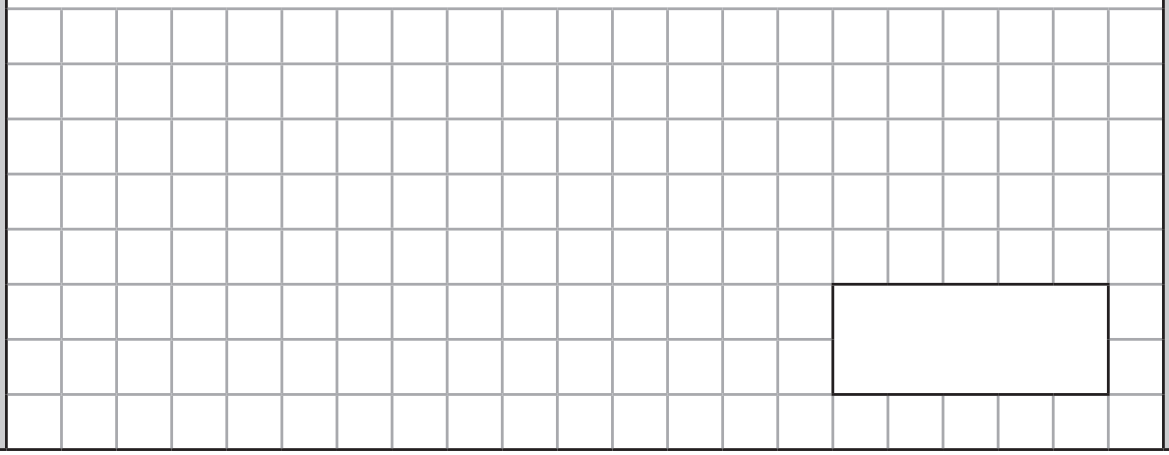
20 $\frac{1}{5} \times \frac{1}{2} =$



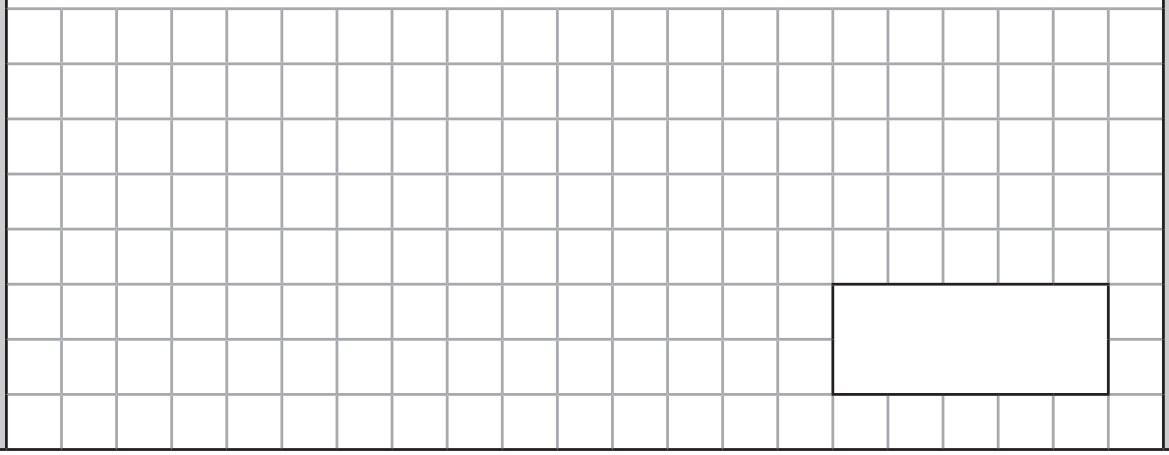
21 $\frac{1}{3} \times \frac{1}{8} =$



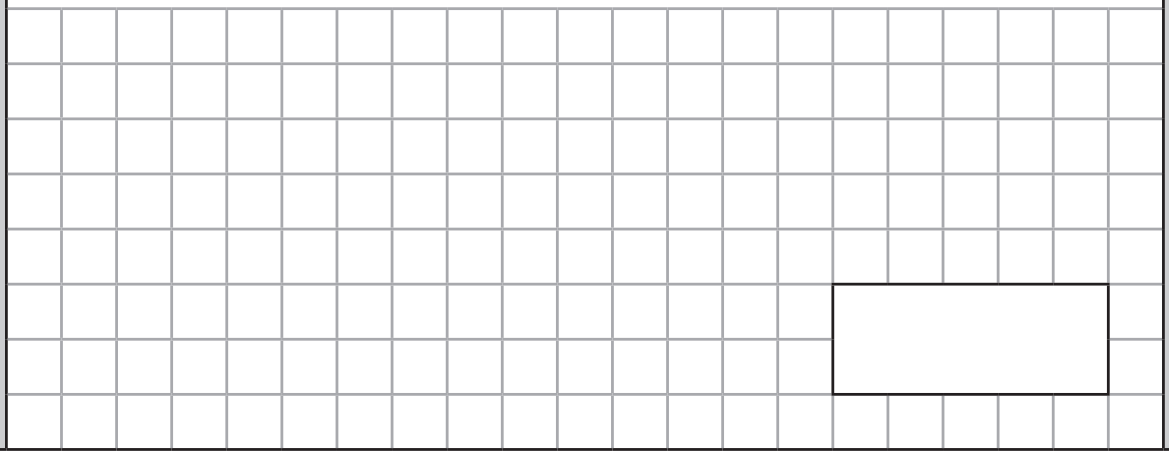
22 $\frac{3}{5} \times \frac{2}{3} =$



23 $\frac{1}{4} \times \frac{2}{5} =$

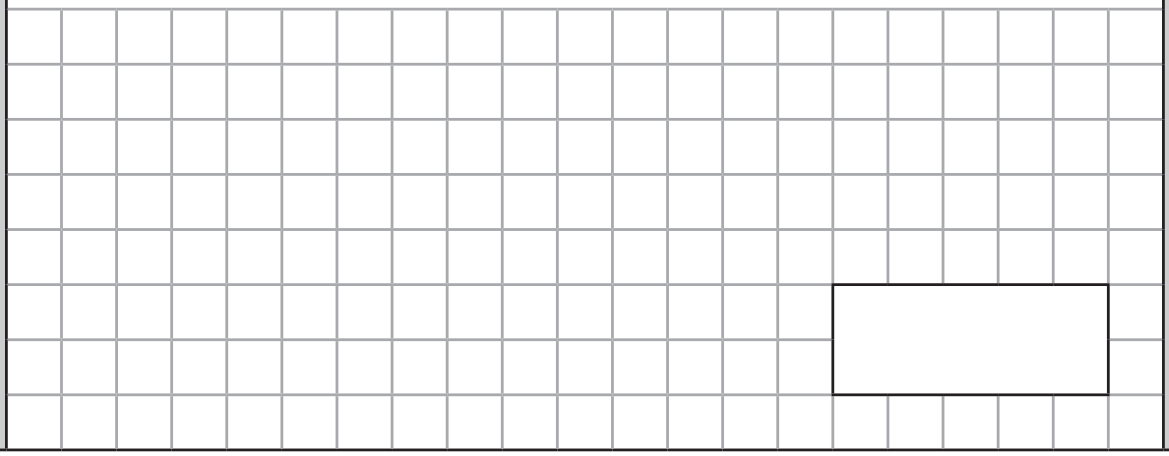


24 $\frac{7}{8} \times \frac{3}{5} =$

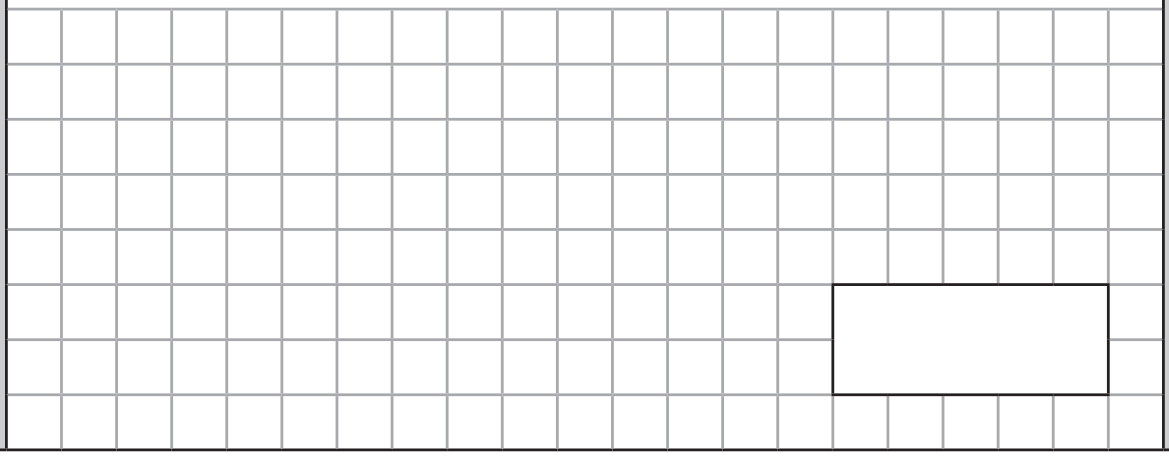


Divide proper fractions by whole numbers.

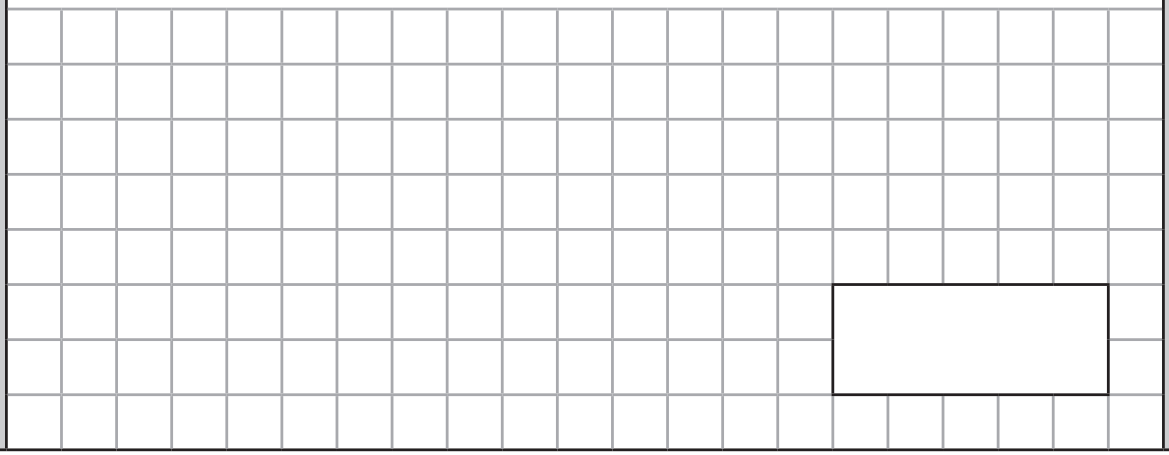
25 $\frac{1}{4} \div 2 =$



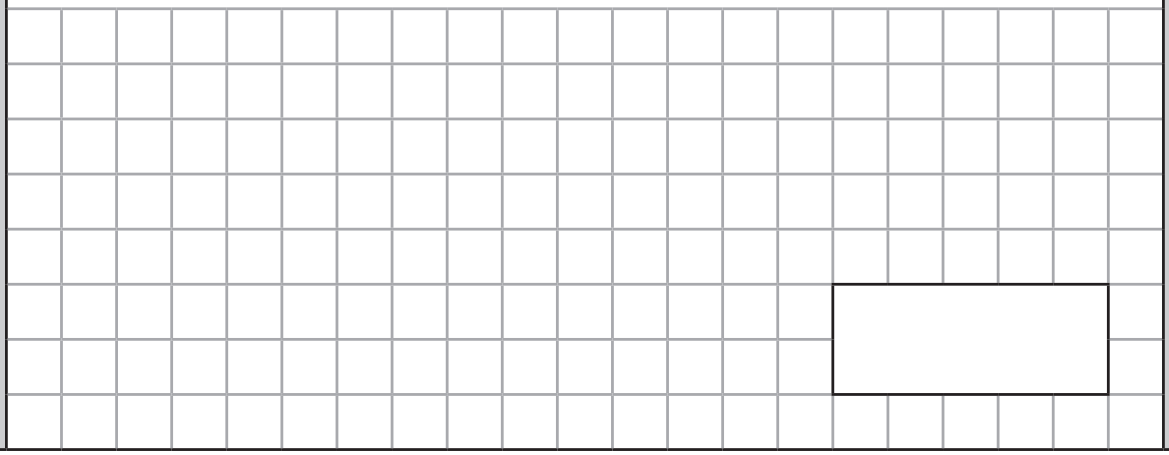
26 $\frac{1}{5} \div 4 =$



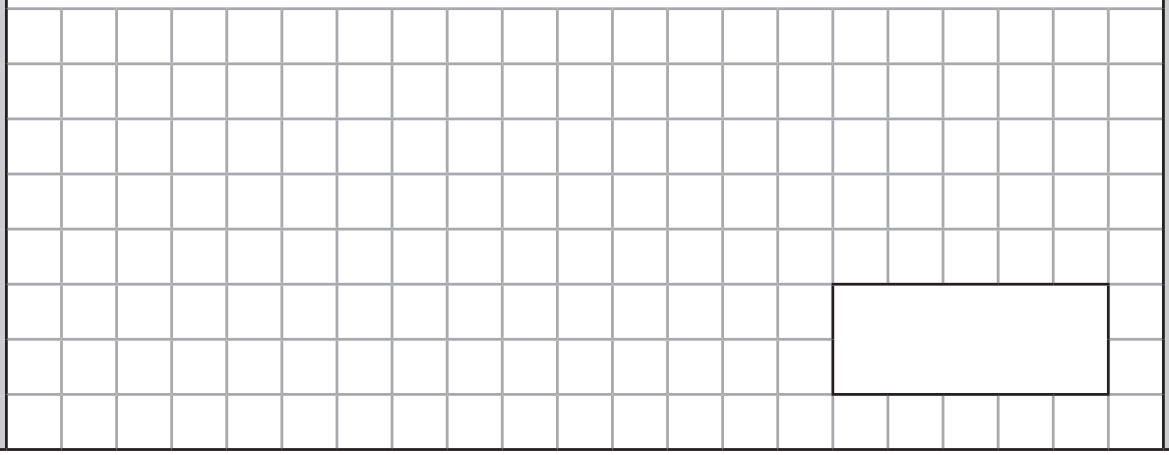
27 $\frac{1}{3} \div 3 =$



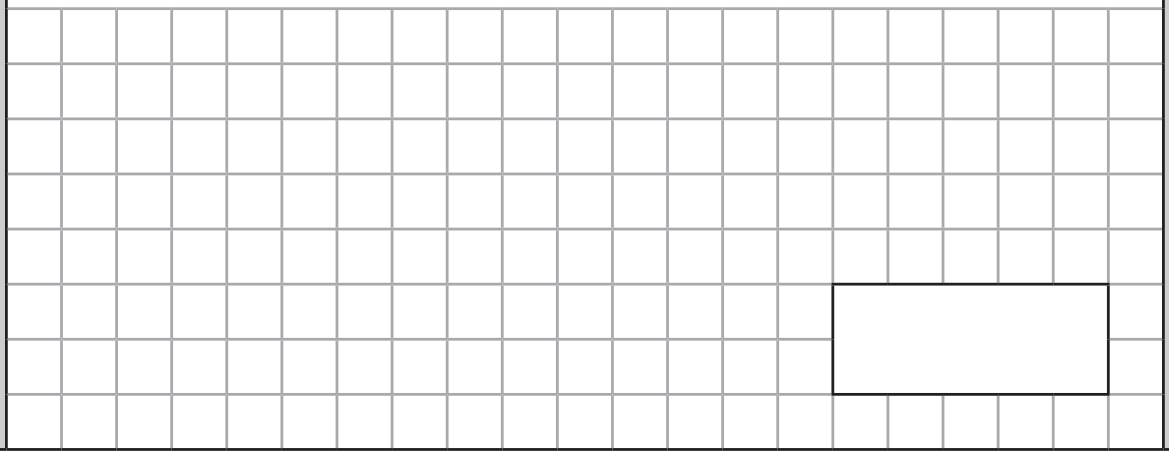
28 $\frac{1}{6} \div 5 =$



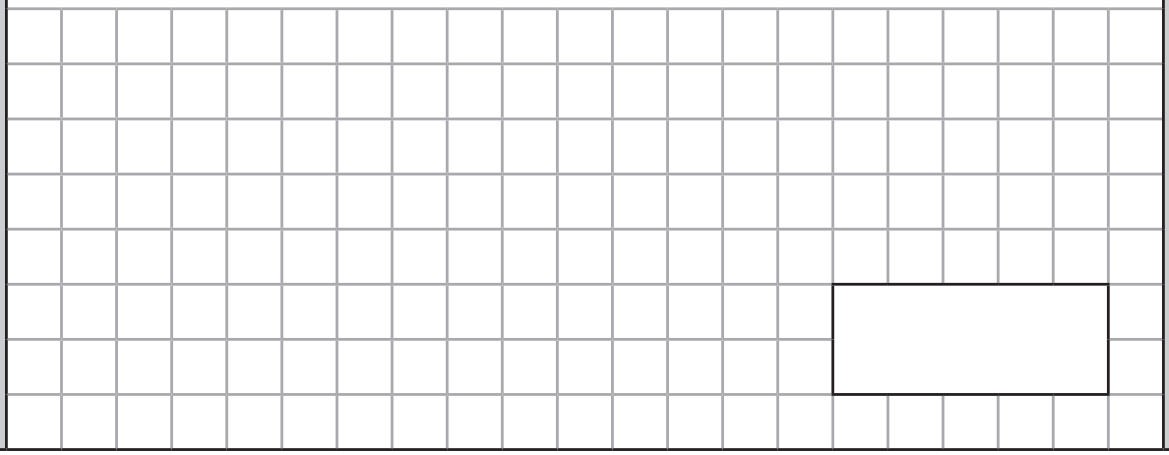
29 $\frac{1}{4} \div 3 =$



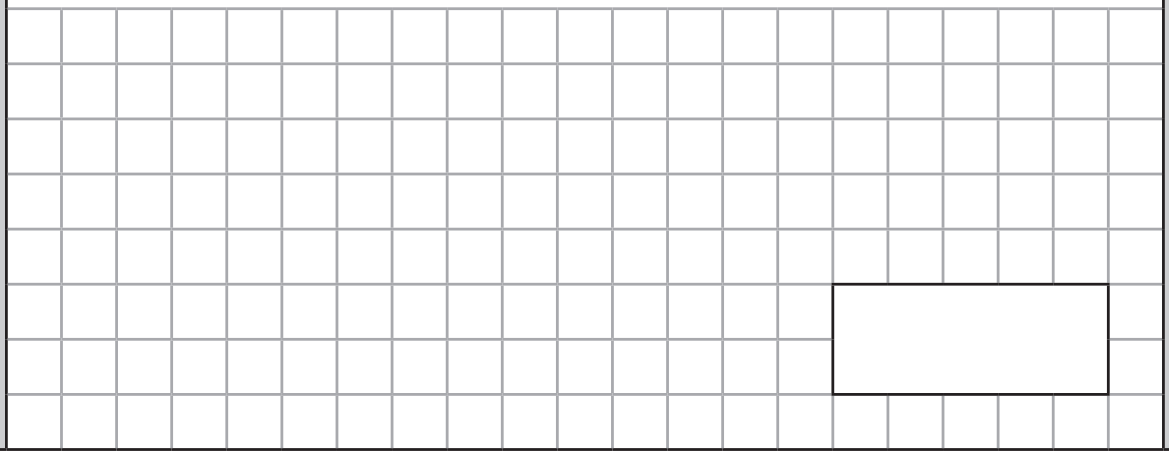
30 $\frac{1}{3} \div 2 =$



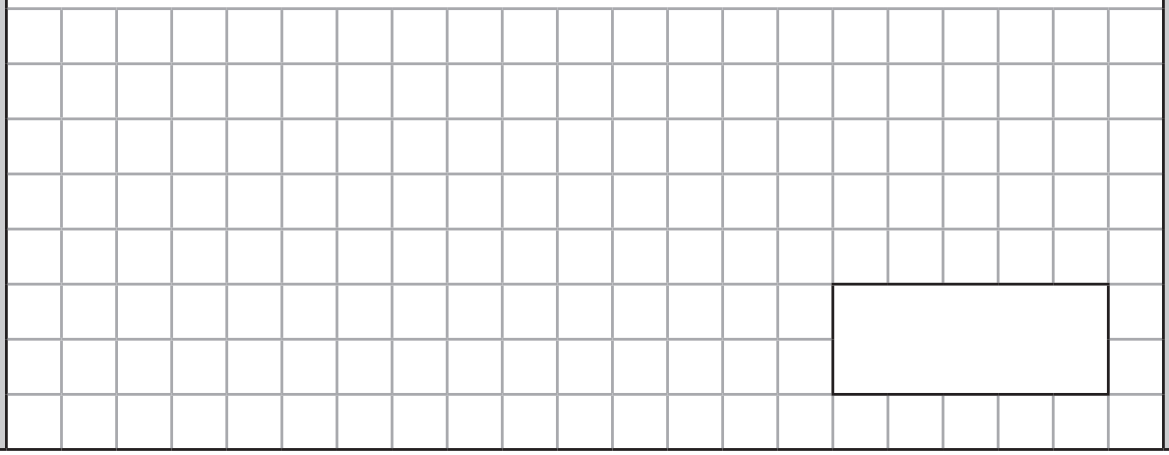
31 $\frac{2}{9} \div 6 =$



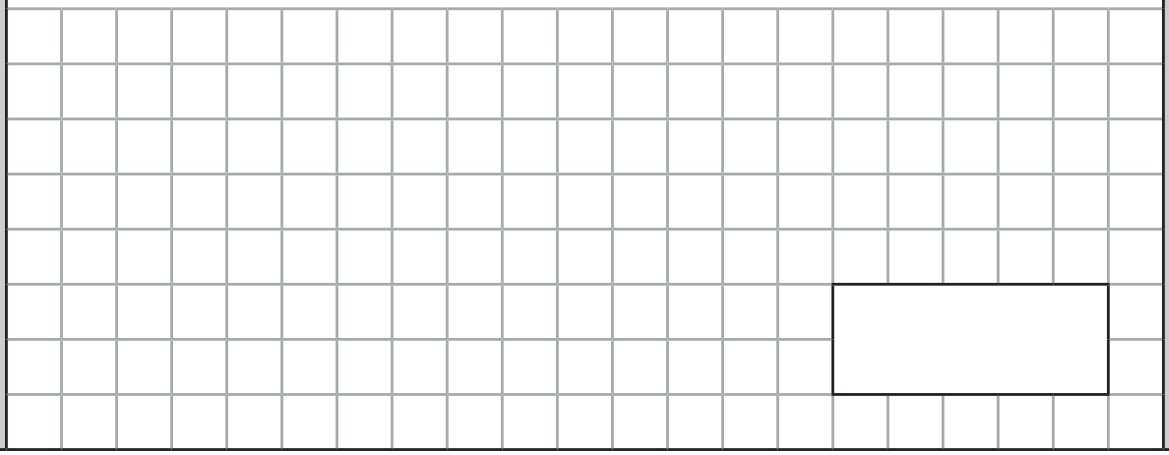
32 $\frac{3}{4} \div 3 =$



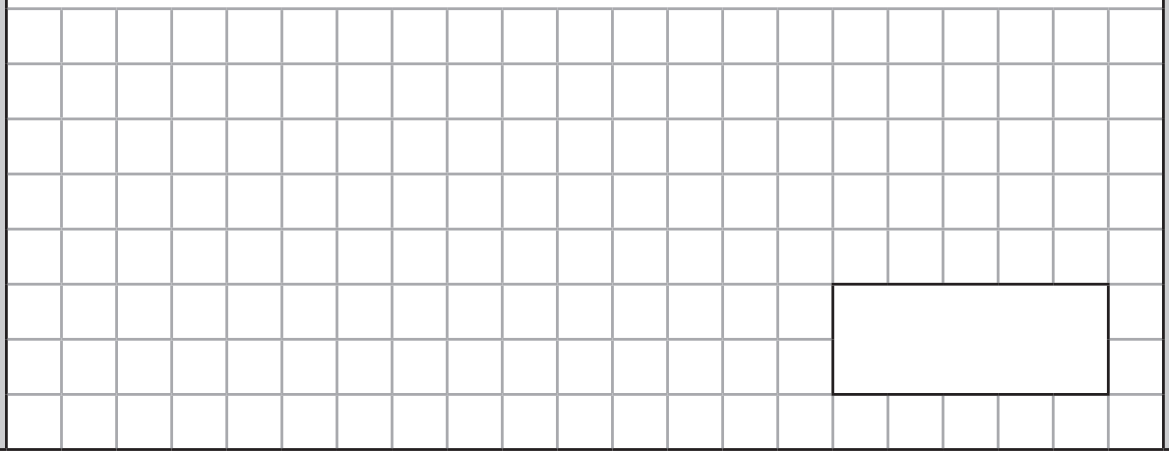
33 $\frac{3}{8} \div 5 =$



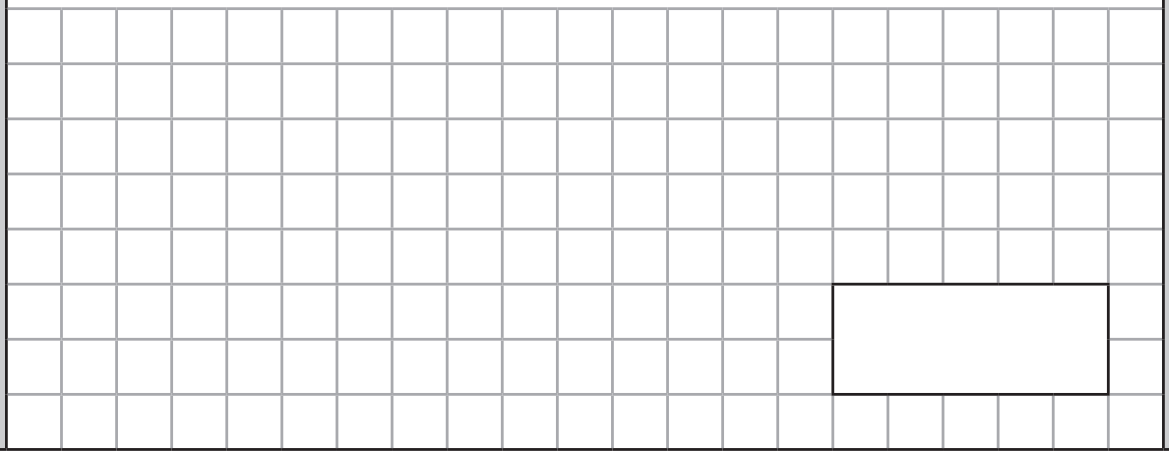
34 $\frac{3}{10} \div 7 =$



35 $\frac{7}{12} \div 2 =$



36 $\frac{4}{5} \div 6 =$



Year 6 Arithmetic Quiz 4: Answers

1. $\frac{2}{5}$ or $\frac{4}{10}$

2. $\frac{1}{2}$ or $\frac{4}{8}$

3. $\frac{3}{5}$ or $\frac{6}{10}$

4. $\frac{1}{4}$ or $\frac{2}{8}$

5. $1\frac{3}{8}$

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

7. $1\frac{27}{40}$

8. $1\frac{3}{20}$

9. $\frac{11}{20}$

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

11. $\frac{5}{72}$

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

13. $8\frac{2}{3}$

14. 27

15. $11\frac{1}{4}$

16. $6\frac{4}{5}$

17. $19\frac{1}{6}$

18. $7\frac{1}{2}$

19. $\frac{1}{20}$

20. $\frac{1}{10}$

21. $\frac{1}{24}$

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

23. $\frac{1}{10}$

24. $\frac{21}{40}$

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

26. $\frac{1}{20}$

27. $\frac{1}{9}$

28. $\frac{1}{30}$

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

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

31. $\frac{1}{27}$

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

33. $\frac{3}{40}$

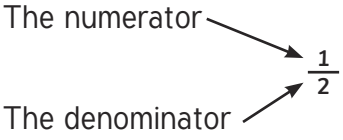
34. $\frac{3}{70}$

35. $\frac{7}{24}$

36. $\frac{2}{15}$

Year 6 Arithmetic Quiz 4

Add and Subtract Fractions



Adding and subtracting fractions with the same denominator:

Add or subtract the numerators, the denominator remains the same.

$\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$ and $\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$

Adding and subtracting fractions with denominators that are multiples:

The denominator must be the same, so find the equivalent fractions with the same denominator. This will usually be by multiplying the numerator and denominator by the same number.

$\frac{3}{10} + \frac{2}{5} = \frac{3}{10} + \frac{4}{10} = \frac{7}{10}$ and $\frac{3}{4} - \frac{3}{8} = \frac{6}{8} - \frac{3}{8} = \frac{3}{8}$

Adding and subtracting fractions using equivalent fractions:

The denominator must be the same, so sometimes both fractions are changed to equivalent fractions with the same denominator.

$\frac{3}{4} + \frac{1}{5} = \frac{15}{20} + \frac{4}{20} = \frac{19}{20}$ and $\frac{2}{3} - \frac{1}{5} = \frac{10}{15} - \frac{3}{15} = \frac{7}{15}$

Multiply fractions by whole numbers and fractions

Multiplying the mixed numbers by whole numbers:

Multiply the whole numbers and multiply the fraction by the whole number. When multiplying the fraction by the whole number, multiply the numerator by the whole number. The denominator stays the same.

$2\frac{1}{4} \times 3 = 6\frac{3}{4}$ because $2 \times 3 = 6$ and $\frac{1}{4} \times 3 = \frac{3}{4}$

Multiplying fractions

Multiply the numerators and multiply the denominators:

$\frac{2}{3} \times \frac{3}{5} = \frac{6}{15}$

Divide proper fractions by whole numbers

To divide proper fractions by whole numbers, multiply the denominator by the whole number:

$\frac{2}{3} \div 5 = \frac{2}{15}$

Year 6 Arithmetic Quiz 5

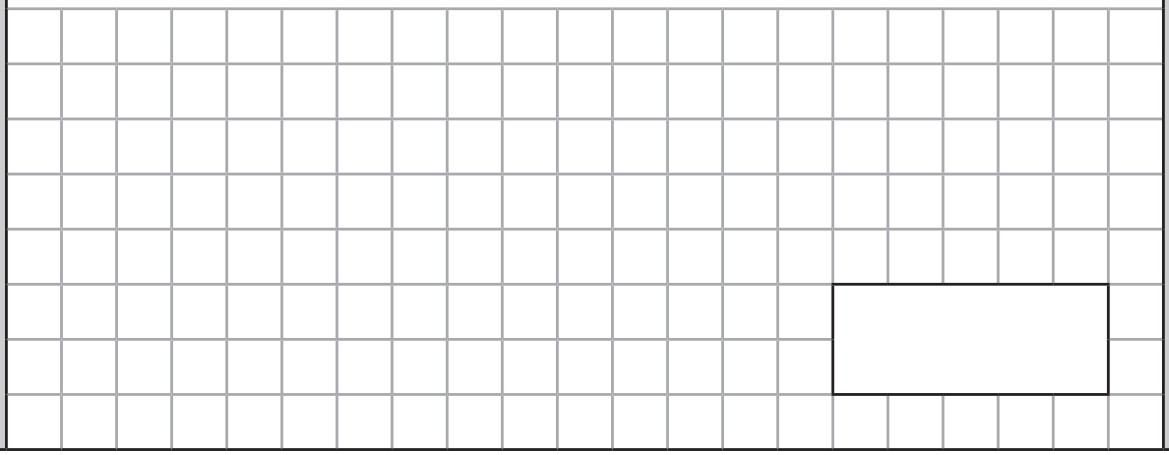
Add and subtract decimal numbers.

1 5.4 + 0.8 =

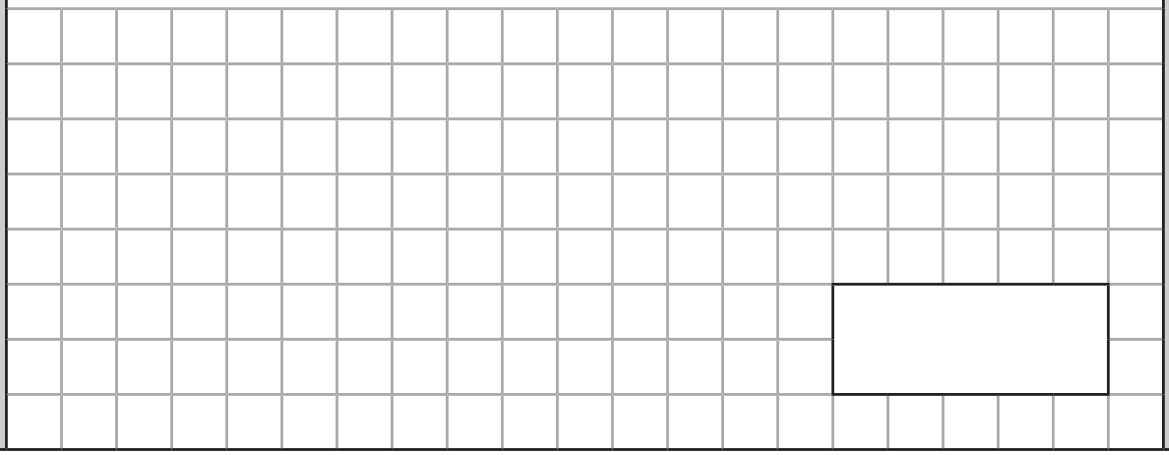
2 8.1 + 0.4 =

3 8.2 - 0.1 =

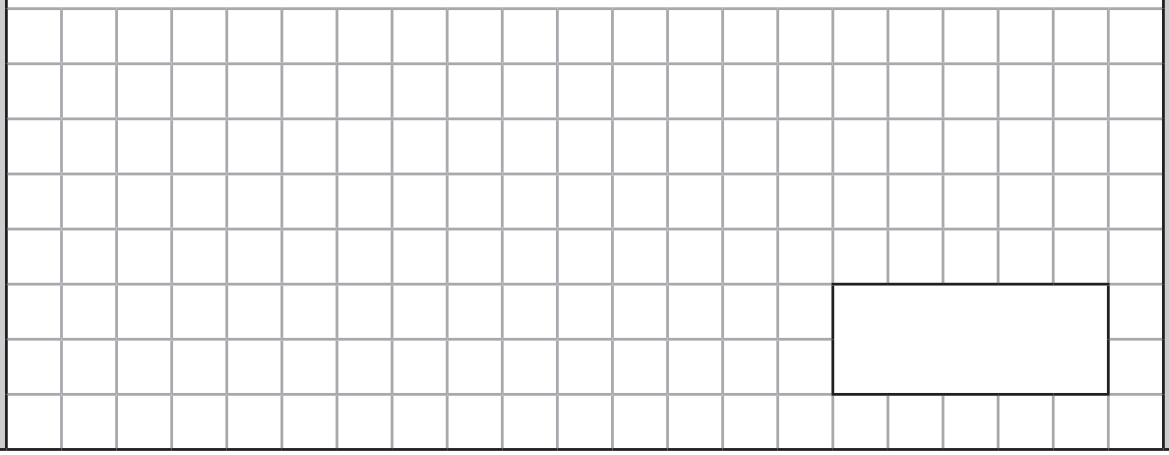
4 3.7 - 0.9 =



5 2.6 + 0.02 =



6 2.8 + 0.06 =

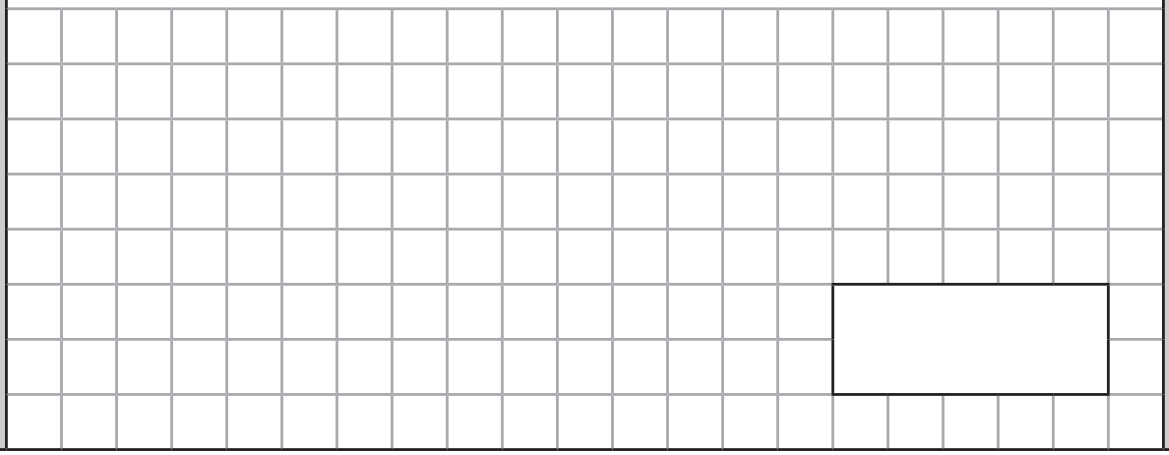


7 1.6 - 0.09 =

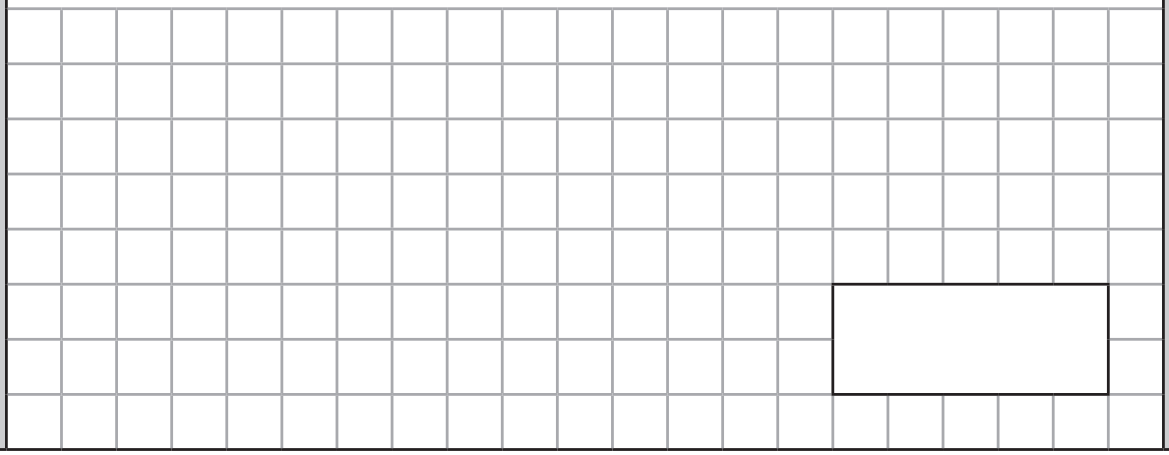
8 4.2 - 0.04 =

9 4.5 + 6.36 =

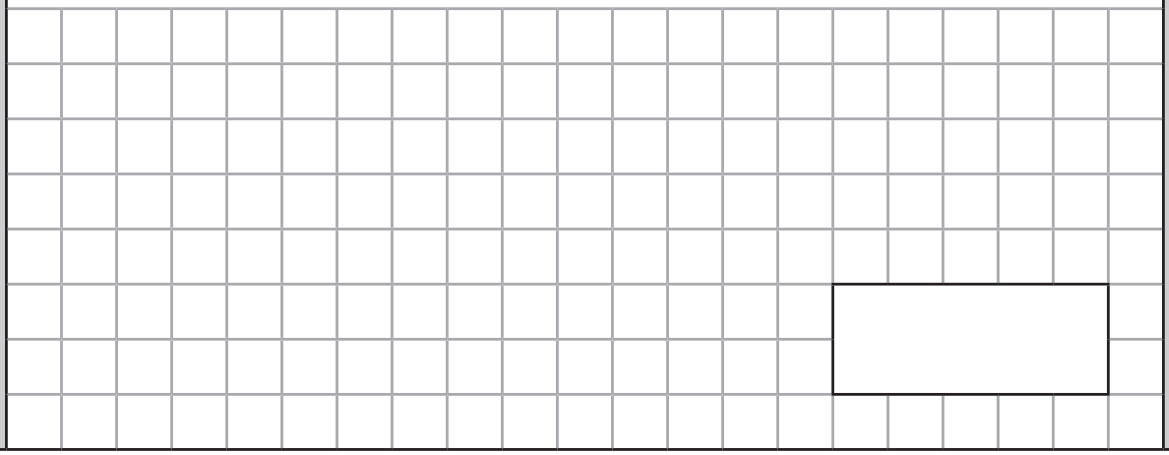
10 1.6 + 2.87 =



11 8.6 - 4.88 =

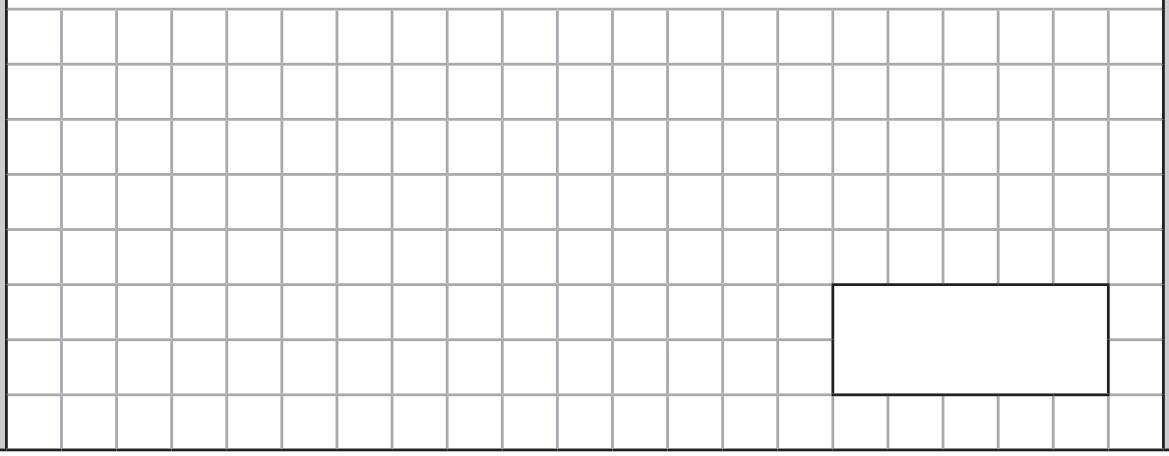


12 9.1 - 3.54 =

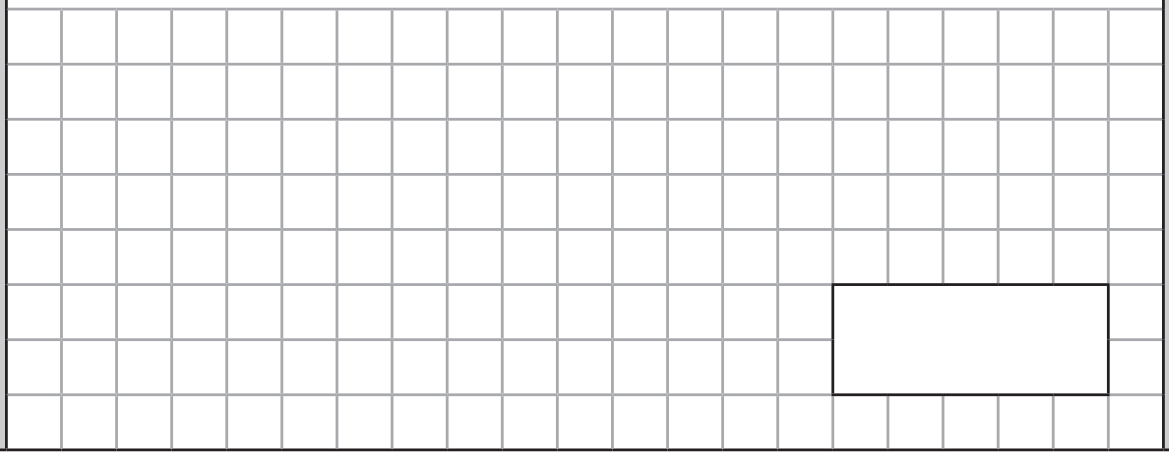


Multiply and divide by 10, 100 and 1000, including decimals.

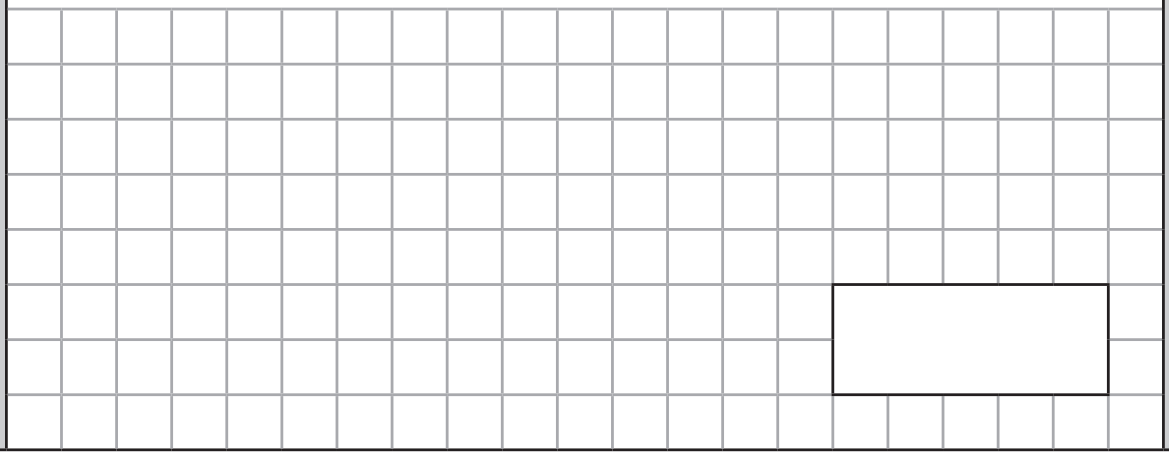
13 4.901 × 10 =



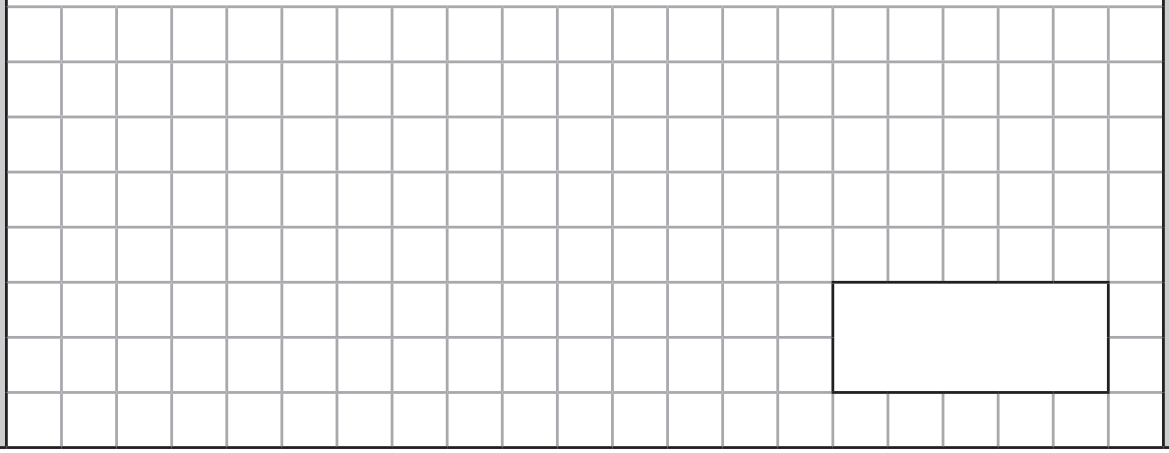
14 45.682 × 10 =



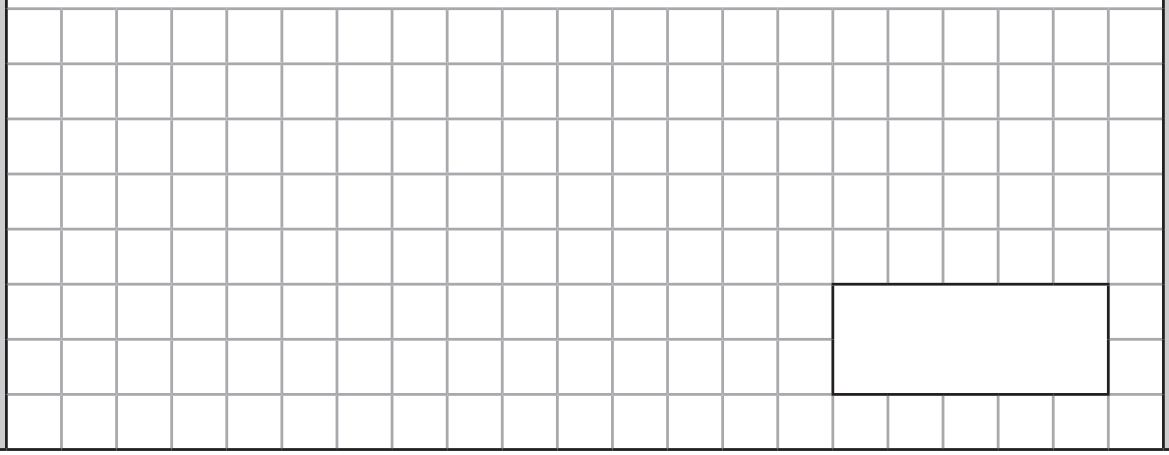
15 5.26 × 100 =



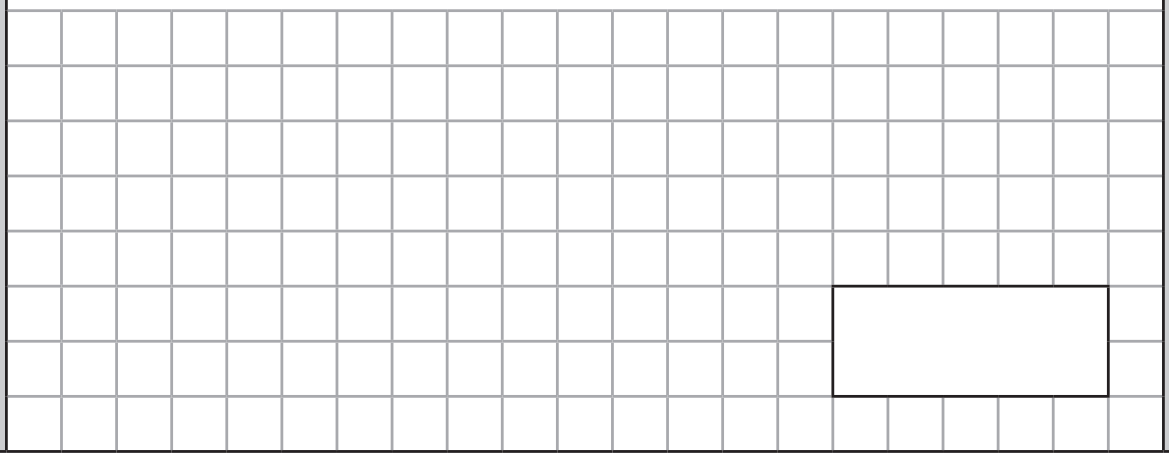
16 6.02 × 100 =



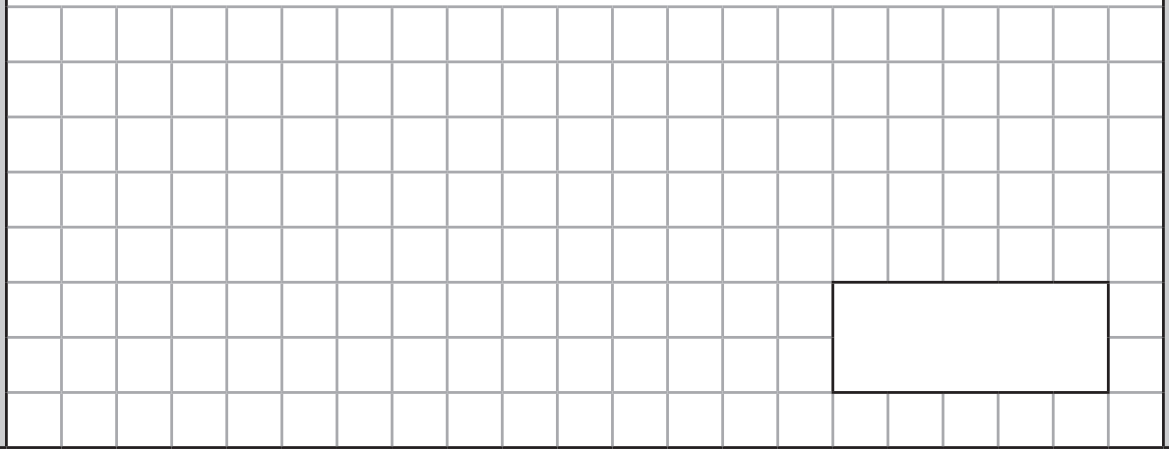
17 2.62 × 1000 =



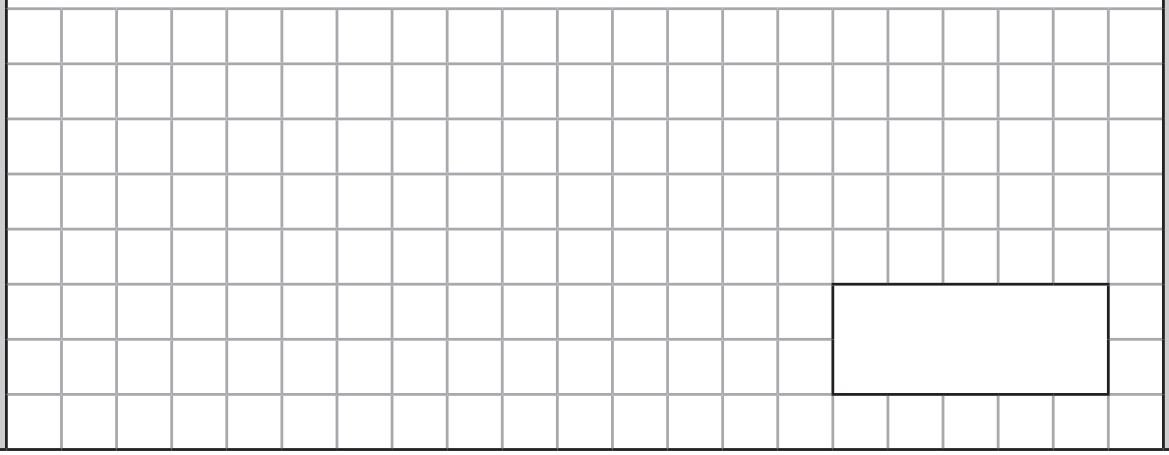
18 0.329 × 1000 =



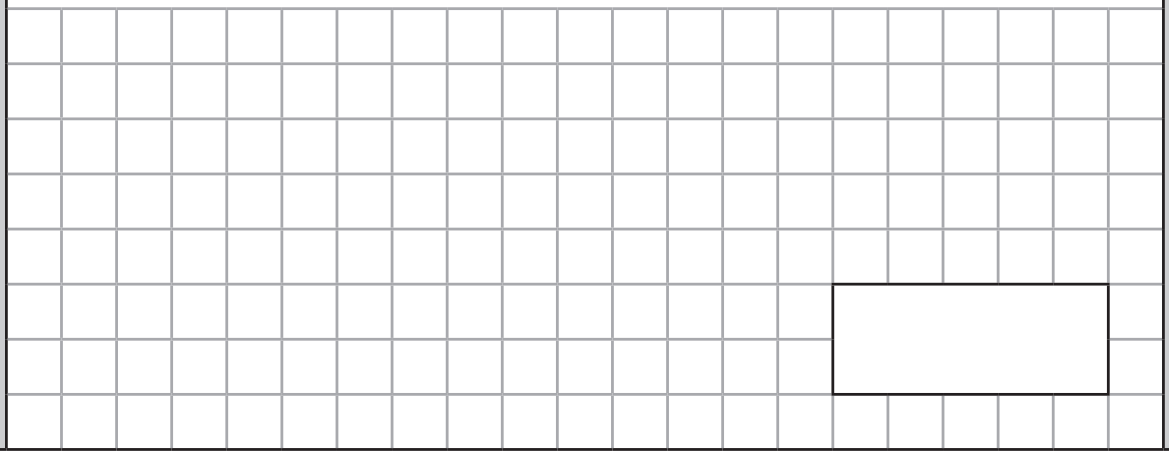
19 2.71 ÷ 10 =



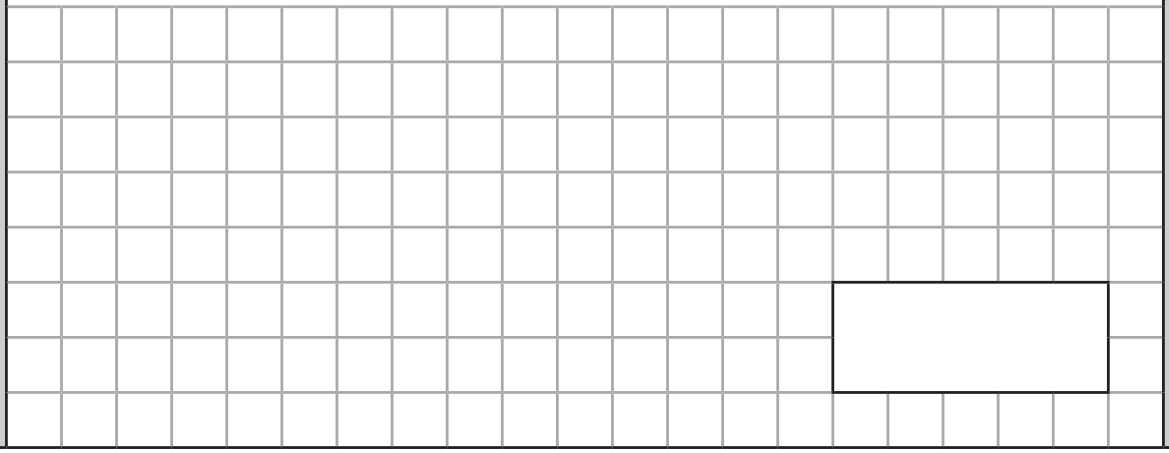
20 18.03 ÷ 10 =



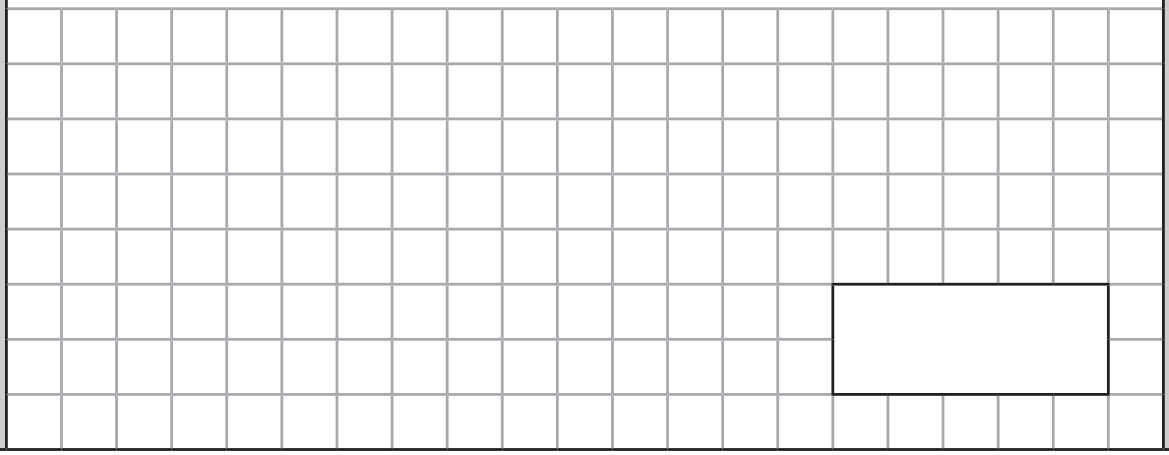
21 473 ÷ 100 =



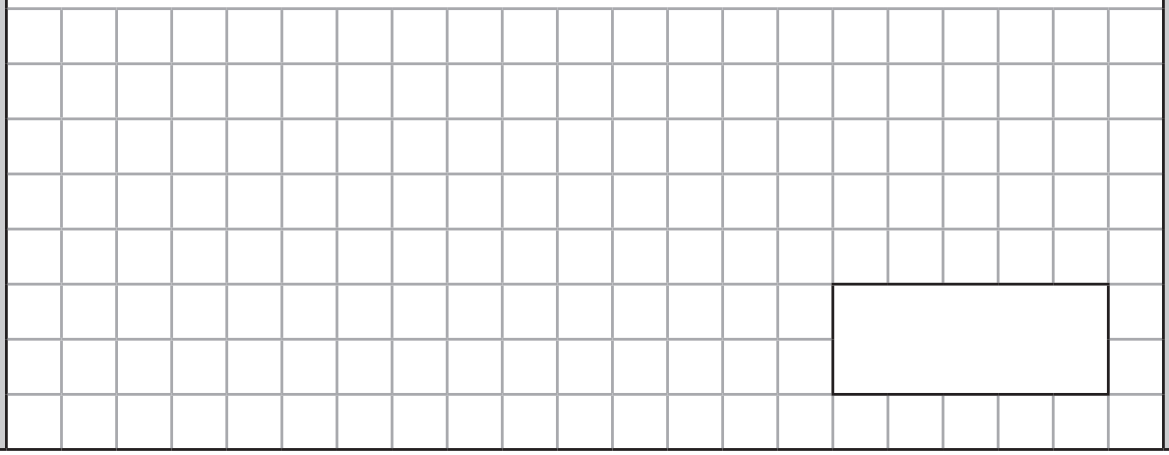
22 51.9 ÷ 100 =



23 214 ÷ 1000 =

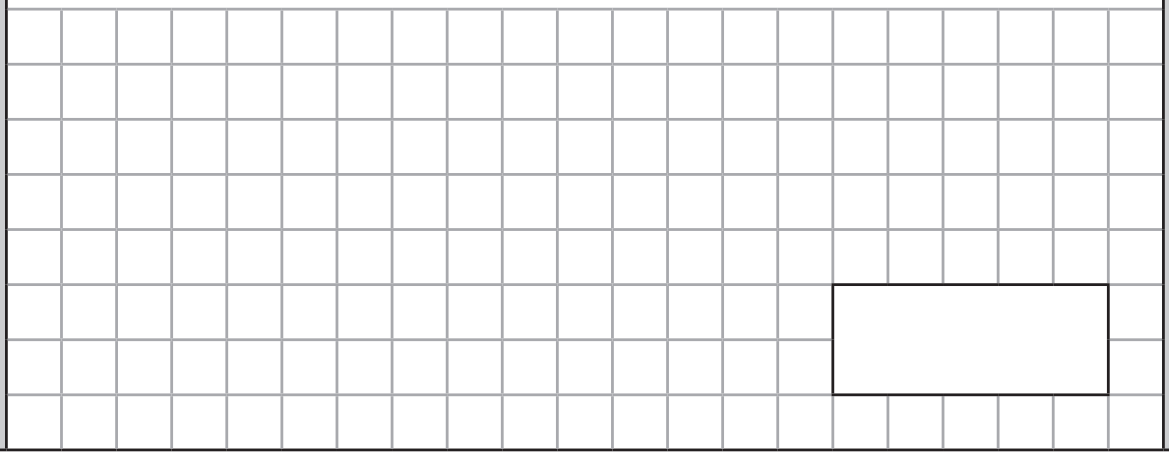


24 1292 ÷ 1000 =

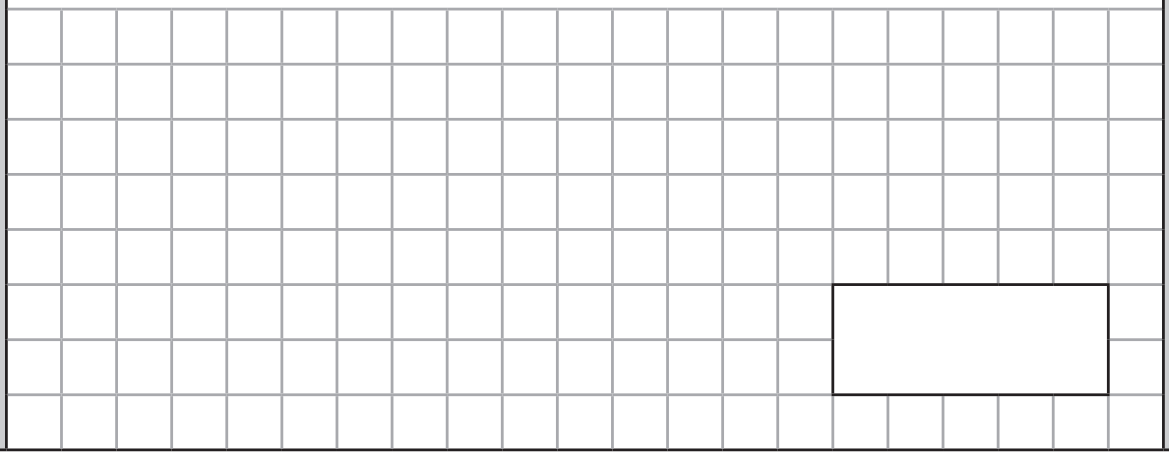


Percentages of amounts.

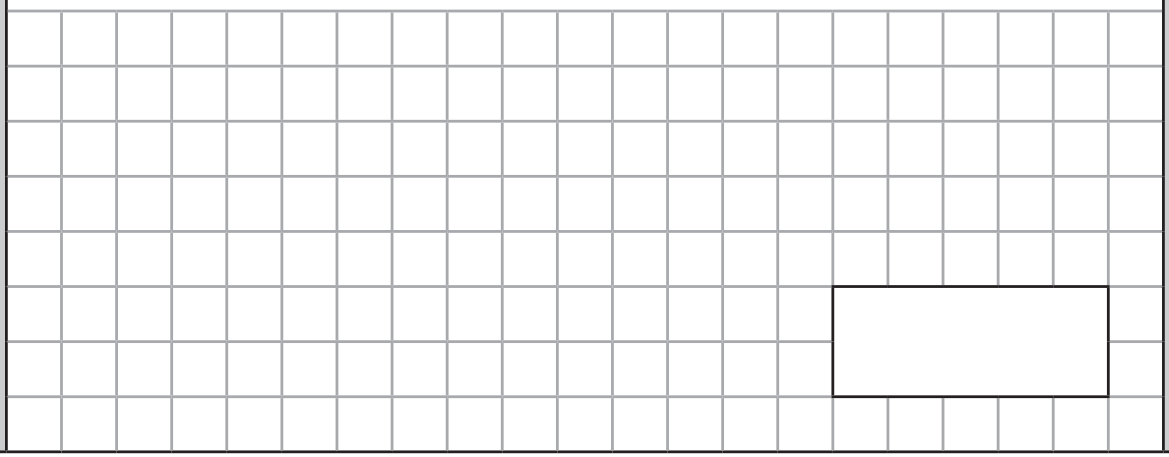
25 25% of 246 =



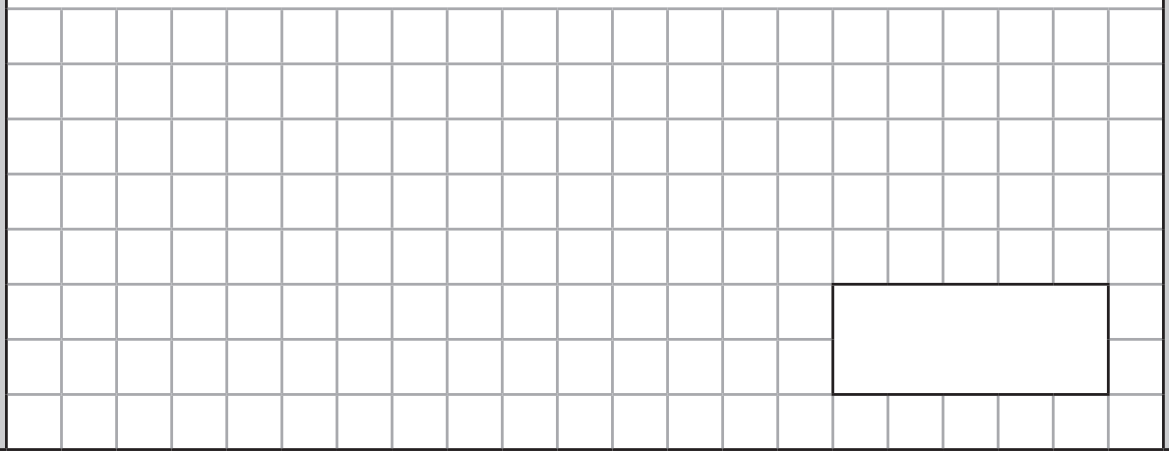
26 50% of 132 =



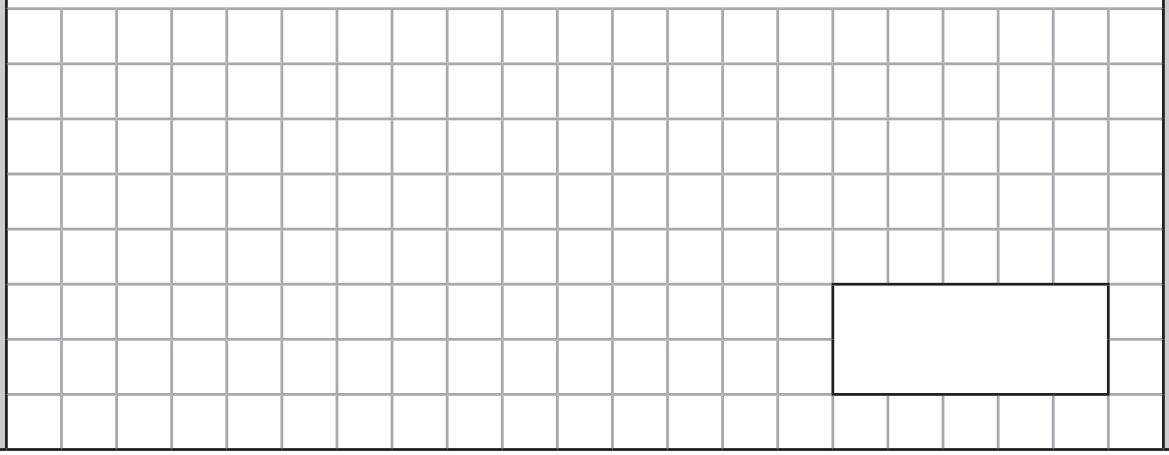
27 5% of 340 =



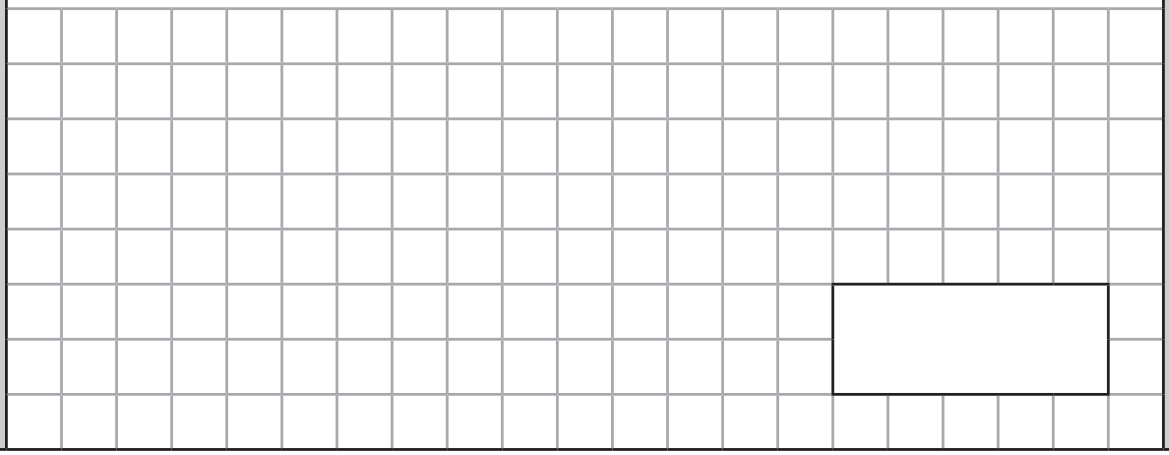
28 10% of 450 =



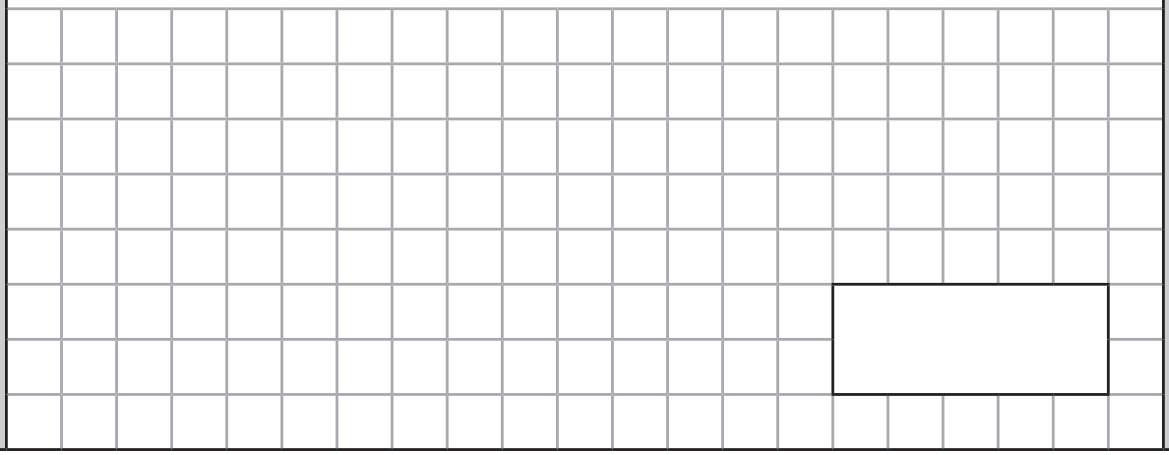
29 25% of 541 =



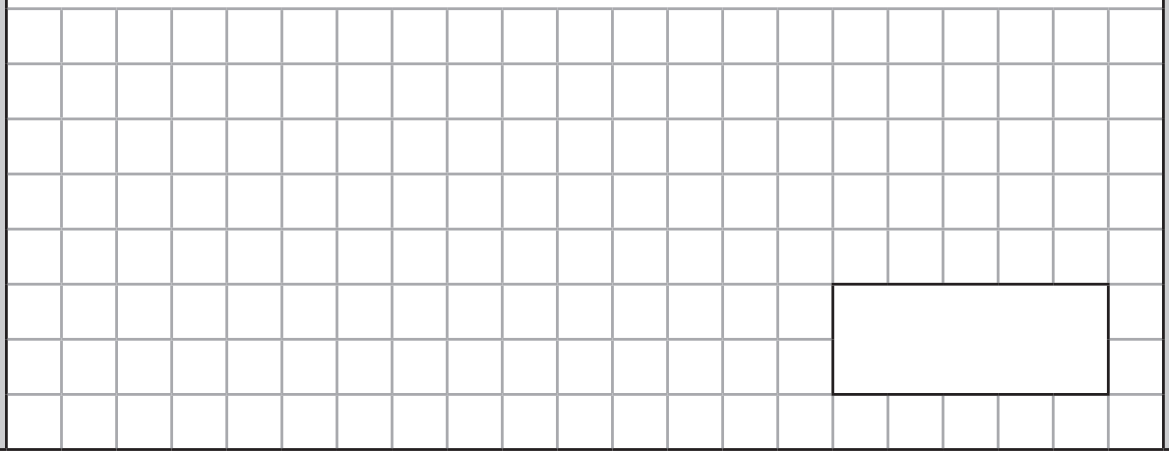
30 20% of 568



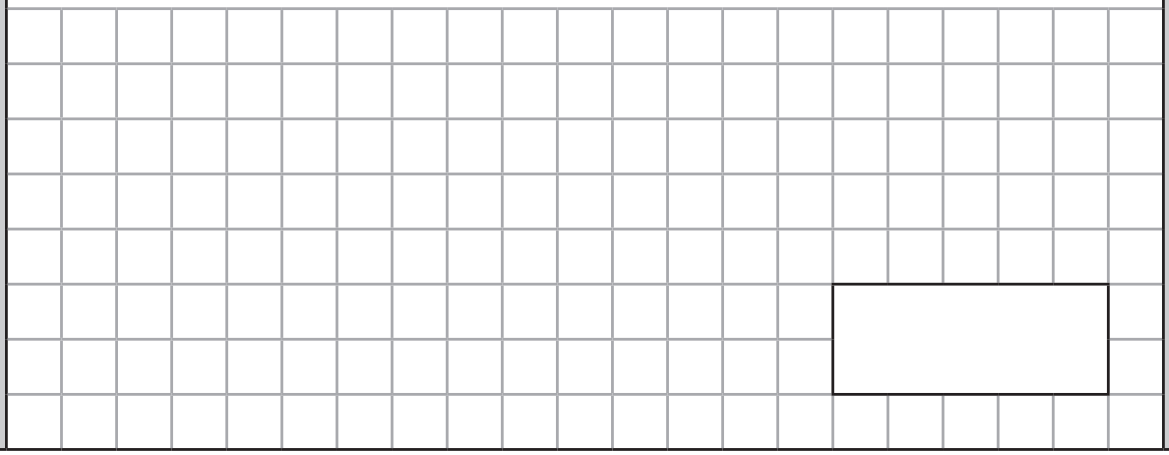
31 7% × 662 =



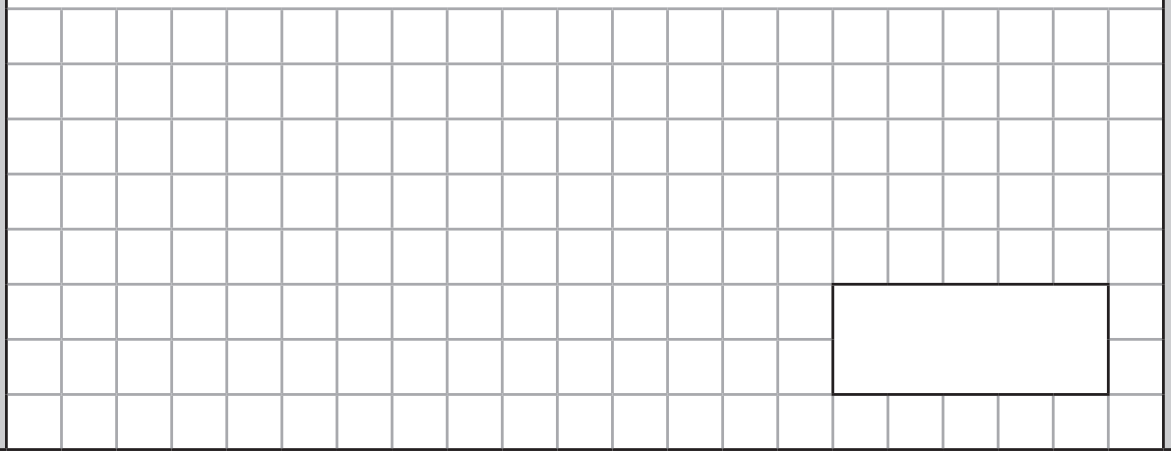
32 14% × 275 =



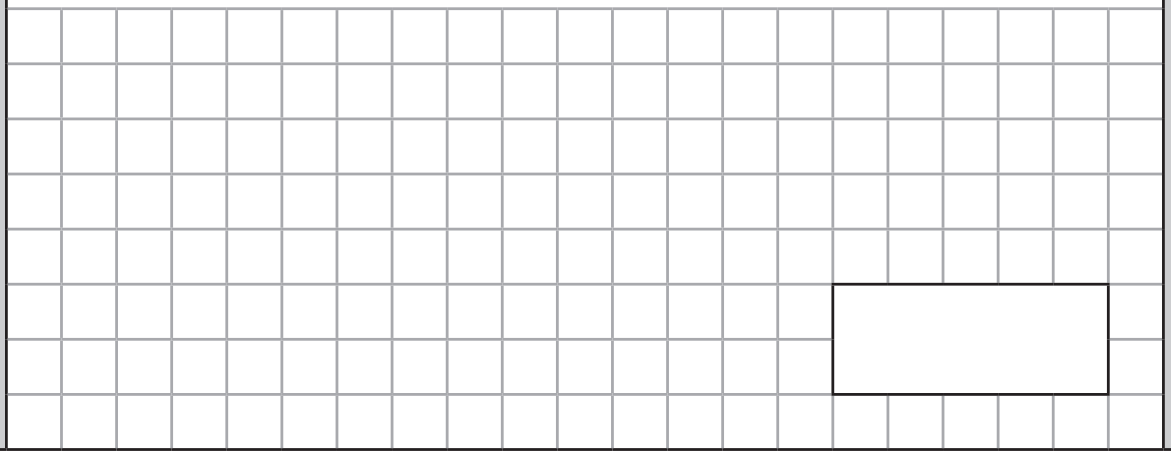
33 60% × 863 =



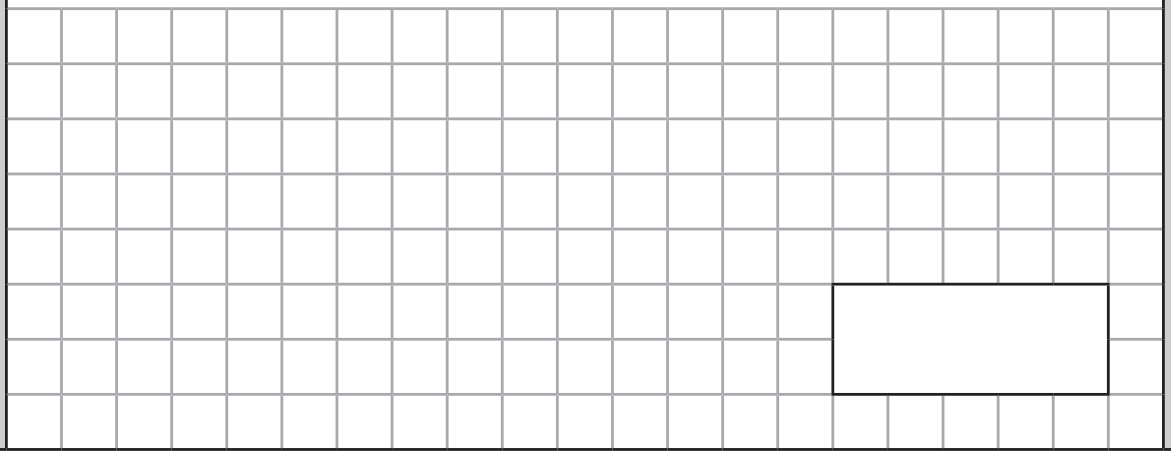
34 35% × 277 =



35 15% × 619 =



36 80% × 338



Year 6 Arithmetic Quiz 5: Answers

1. 6.2

2. 8.5

3. 8.1

4. 2.8

5. 2.62

6. 2.86

7. 1.51

8. 4.16

9. 10.86

10. 4.47

11. 3.72

12. 5.56

13. 49.01

14. 456.82

15. 526

16. 602

17. 2620

18. 329

19. 0.271

20. 1.803

21. 4.73

22. 0.519

23. 0.214

24. 1.292

25. 61.5

26. 66

27. 17

28. 45

29. 135.25

30. 113.6

31. 46.34

32. 38.5

33. 517.8

34. 96.95

35. 92.85

36. 270.4

Year 6 Arithmetic Quiz 5

Add and Subtract Decimal Numbers

Some addition and subtraction will be done mentally, some using a formal columnar method. When the columnar method is used, the numbers must be lined up correctly.

4.7 + 0.6 = 5.3

1.7 + 0.08 = 1.78

7.2 + 1.94

Line up the two numbers using the columnar method and add.

		7	. 2		
	+	1	. 9	4	
		9	. 1	4	
		1			

Multiply and divide by 10, 100 and 1000, including decimals

When multiplying by 10, 100 and 1000 the number increases and the digits move to a new place value 1, 2 or 3 places accordingly.

When dividing by 10, 100 and 1000 the number decreases and the digits move to a new place value 1, 2 or 3 places accordingly.

3.4 × 10 = 34

3.56 × 100 = 356

0.984 × 1000 = 984

67 ÷ 10 = 6.7

35.8 ÷ 100 = 0.358

452 ÷ 1000 = 0.452

Percentages of amounts

A percentage is a part out of 100. So 50% is 50 parts of an amount out of 100 parts. 50% is equivalent to one half.

25% is 25 parts of an amount out of 100 parts. 25% is equivalent to one quarter.

10% is 10 parts out of 100, which is equivalent to 1 part out of 10.

10% of 80 = 8

20% of 80 = 16 (because 20% is twice 10%)

25% of 80 = 20 (because 25% is one quarter)

5% of 80 = 4 (because 5% is half 10%)

35% of 80 = 28 (because 35% is 25% + 10% or 10% × 3 + 5%)