Foundation Number Revision

Name:

Teacher:

Maths Non-Calculator

1. *(a)* Add 3874 and 649. [1]

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(b) Subtract 532 from 700. [1]

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(c) Write down all the factors of 27. [2]

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The factors of 27 are ....

1. *(a)* Write the number fifty thousand and four in figures. [1]

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(b) Calculate £7.20 divided by 9.

Write your answer in pence. [2]

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Answer: .... pence

(c) Mair thought of two whole numbers.
When she multiplied them together, the answer was 20.
When she added them together, the answer was 9.
What are the two numbers that Mair thought of? [2]

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Numbers are .... and ....

2. *(a)* Write a number in each box so that each calculation is correct.

(i) $397 + 405 =$ ☐ [1]

(ii) ☐ $+ 274 = 419$ [1]

(iii) $11 \times$ ☐ $= 220$ [1]

(b) Write these numbers in order of size, beginning with the smallest. [1]

6·49   6·94   6·4   6·9

☐   ☐   ☐   ☐

smallest   largest

3. *(a)* Kate thought of a number.
She multiplied her number by 9 and got the answer 54.

What number did Kate think of? [1]

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(b) Write **a positive whole number** in each empty box to make this statement true. [1]

$$\boxed{} \times \boxed{8} + \boxed{} = \boxed{21}$$

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5. *(a)* Write 481·627 correct to 2 decimal places. [1]

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(b) Write down the value of 8^2. [1]

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(c) Write down the value of $\sqrt{49}$. [1]

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(d) Work out 38·25 ÷ 1000. [1]

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6. *(a)* Write one of the numbers 3, 5, 7, 9 in each box.
Each number may be used only once.
The sum of the numbers in the column must equal the sum of the numbers in the row.

[1]

$$\square$$

$$\square \quad \boxed{10} \quad \square$$

$$\square$$

Space for working:

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(b) Write a **different multiple of 4** in each box to make this sum correct. [2]

$$\square \; + \; \square \; + \; \square \; = \; \boxed{40}$$

Space for working:

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7. There are 204 students at Ysgol Bryn.
    The caretaker always puts 15 chairs in each row in the school hall.

    • How many **complete rows of chairs** must the caretaker put out so that each student can sit on a chair?
    • How many empty chairs will there be?   [5]

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Number of complete rows of chairs = ...

Number of empty chairs = ...

8. Using only the numbers in the following list,

57   58   59   60   61   62   63   64   65

write down

(a) a prime number,   [1]

....

(b) a cube number,   [1]

....

(c) a factor of 186,   [1]

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(d) a multiple of 7·25.   [1]

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8. (a) Write down the value of 9^2.   [1]

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(b) Work out $1·2 \times 70$.   [1]

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9. Circle either TRUE or FALSE for each calculation given below.   [3]

CALCULATION		
$23 - (4 + 2) \times 3 = 5$	TRUE	FALSE
$\dfrac{7}{10} + \dfrac{2}{5} = \dfrac{9}{15}$	TRUE	FALSE
$\dfrac{1}{2}$ of $\dfrac{1}{8} = \dfrac{1}{4}$	TRUE	FALSE
25% of 0·4 = 0·1	TRUE	FALSE
$28 - 3 \times 2 + 5 = 55$	TRUE	FALSE

Space for working:

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8. Match each expression with its value.

    The first one has been done for you.   [4]

Expressions	Values
50% of 22	11
	2
	8
$\frac{1}{5}$ of 90	10
4^2	16
	18
$\sqrt{100}$	20
25% of 80	45
	50

Space for working:

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11. Complete each row of the following table.
The first row has been completed for you. [3]

Place	Temperature at 10 a.m.	Change	Temperature at 6 p.m.
Cwmbran	2°C	Down 4°C	−2°C
Llanelli	−3°C	Down 1°C	
Llanidloes	−4°C		−1°C
Porthmadog		Up 4°C	3°C

12. Write 7%, $\frac{3}{5}$ and 0·3 in ascending order.

You must show all your working. [3]

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Smallest value ————————→ Greatest value
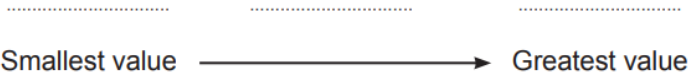
12. Calculate each of the following.

(a) 0·4 × 0·7 [1]

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(b) 13·8 − 7·45 [1]

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(c) $3^3 - 2^4$ [2]

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(d) $\frac{9}{10} - \frac{3}{5}$ [2]

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12. Write down 0·4, 15% and $\frac{1}{20}$ in ascending order.

You must show all your working. [3]

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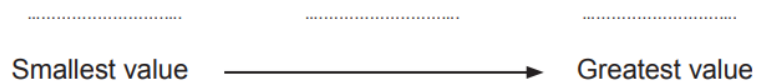
Smallest value   ⟶   Greatest value

12. In this question, you must use only the numbers 3 and 7 to make other numbers.
You must only add or subtract.

For example, if we wanted an answer of 11, we could write

$$7 + 7 - 3 = 11.$$

Show how you can get each of the following answers.

(a) 2   [1]

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Write your solution in the box below.

= 2

(b) 8   [1]

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Write your solution in the box below.

= 8

(c) 19   [1]

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Write your solution in the box below.

= 19

13. Circle either TRUE or FALSE for each of the following statements. [3]

20% of 70 is the same as 70% of 20.	TRUE	FALSE
$\frac{1}{2}$ of $\frac{1}{8}$ is the same as $\frac{1}{8}$ of $\frac{1}{2}$	TRUE	FALSE
A number is halved. The answer is halved, and then this answer is halved again. This gives the same answer as dividing the original number by 6.	TRUE	FALSE
Dividing a number by 15 is the same as first dividing by 10 and then dividing the answer by 5.	TRUE	FALSE
Multiplying a number by 2·5 is the same as first multiplying by 10 and then dividing the answer by 4.	TRUE	FALSE

Space for working:

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17. Find the whole number which satisfies all of the following conditions:

- It is a whole number between 1 and 40 inclusive.

- The number is a multiple of 4 but not a multiple of 8.

- 3 is a factor of this number.

- The number is a square number. [3]

The whole number is ....

18. Two types of number are added or multiplied together.
Complete the table below to show whether the answer will be odd or even.
One answer has been filled in for you. [3]

Calculation:	Answer will be:
even number + even number	even
even number + odd number	
odd number + odd number	
even number × even number	
even number × odd number	
odd number × odd number	

18. *(a)* Estimate the value of $\dfrac{41 \cdot 3 \times 29 \cdot 6}{198 \cdot 7}$.

You must show all your working. [2]

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(b) Given that $54 \times 84 \cdot 2 = 4546 \cdot 8$, write down the exact value of each of the following.

(i) 540×842 = ... [1]

(ii) $\dfrac{4546 \cdot 8}{5 \cdot 4}$ = ... [1]

(iii) $\dfrac{454 \cdot 68}{84 \cdot 2}$ = ... [1]

Maths Calculator

1. *(a)* Fill in the boxes below to make each calculation correct. [4]

8	×	£0.45	=	£ ....
6	×	£	=	£6.30
....	×	65p	=	£7.80
£3.60	÷	....	=	36p

1. Fill in the boxes below to make each calculation correct. [4]

9p + £4.58 = £............

43p + £............ = £6.27

12 × 59p = £............

19 × £............ = £27.55

Space for working:

1. Fill in the missing numbers in the calculations below. [4]

245	+	....	=	1023

....	−	263	=	642

46	×	....	=	1610

....	÷	15	=	43

2. Use either the symbol < or > to make each statement true. [2]

3	....	12

4	....	−3

0·25	....	0·5

−20	....	−15

1. Complete the calculations below.   [4]

975   ×   74   = ...

834   ×   ....   =   43 368

....   ÷   43   =   1376

5056   ÷   ....   =   32

Space for working:

2. (a) Write down the first 5 multiples of 44.   [1]

    (b) A number has **exactly** four factors.
         Its factors are 1, 3, 11 and the number itself.
         What is the number?   [1]

3. *In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.*

Charlotte writes down 3 different factors of 20.
The sum of the 3 factors is greater than 10 but less than 15.

What 3 factors could Charlotte have written down?
You must show how you worked out your answer. [3 + 2 OCW]

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3. *(a)* Write down the first 3 multiples of 47. [1]

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(b) One of the numbers below is a factor of 676.
Circle the correct number. [1]

22   32   42   52   62

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(c) When one of the numbers below is divided by 22, there is a remainder of 11.
Circle the correct number. [1]

208   209   210   211   212

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3. Use one of the symbols < , > or = to make each of the following statements correct. **[2]**

6 + 48	....	8

6 − 48	....	8

6 × 48	....	8

6 ÷ 48	....	8

Space for working:

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4. Matthew writes down three **different** numbers.
   - One number is a square number.
   - The other two numbers are factors of 20.
   - The sum of the three numbers is 24.

   What three numbers did Matthew write down? [3]

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   Matthew's three numbers are .... , ... and ....

5. (a) Bethan writes down two square numbers.

   She adds her two numbers together.
   Her answer is a square number less than 30.

   Which two square numbers did Bethan write down? [2]

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   Bethan's square numbers are .... and ....

   (b) Harri adds three even numbers together and gets an answer of 23.

   Explain how you know that Harri's answer is incorrect. [1]

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5. Complete the table below so that each row will show equivalent fractions, decimals and percentages.
The first row has been completed for you. [4]

Fraction	Decimal	Percentage
$\dfrac{1}{2}$	0·5	50 %
$\dfrac{1}{10}$	....	.... %
$\dfrac{........}{25}$	....	8 %

6. *(a)* Calculate $3 + 5 \cdot 4^2$. [1]

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(b) Calculate $\dfrac{\sqrt{2 \cdot 56}}{4}$. [1]

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6. *(a)* Find the value of $\dfrac{235 \times 20^2}{17}$.

Write your answer correct to the nearest 10. [2]

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(b) Find the value of $\sqrt{56 - 37} + 28$.

Write your answer correct to 2 decimal places. [2]

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7. *(a)* What percentage of the following shape is shaded? [2]

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.... %
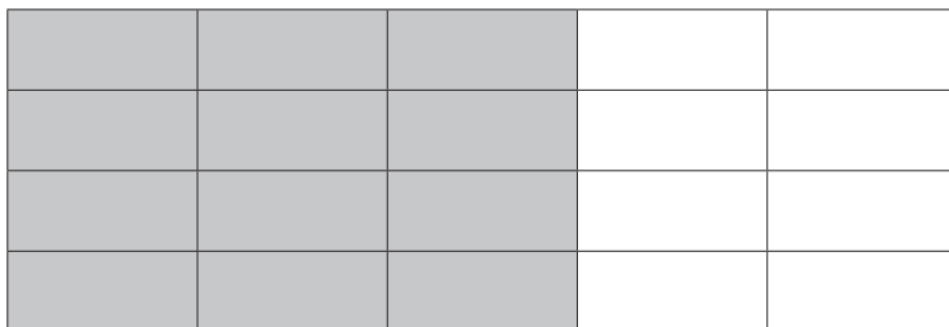
(b) You are given the value of 25% of a number.
Explain how you can find the value of the number. [1]

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(c) Explain how you know that $\frac{1}{8}$ is greater than $\frac{1}{10}$. [1]

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8. Eira believes that 4 minutes 48 seconds is less than half of 9 minutes 18 seconds.
Is Eira correct?
You must show all your working. [2]

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10. *(a)* Fatima writes down three **square** numbers.
The total of the square numbers is 30.

Which square numbers did Fatima write down? [3]

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The numbers which Fatima wrote are .... , ... and ....

(b) (i) Find the total of £7.30, £15.60 and 87p. [1]

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(ii) Write this total correct to the nearest £1. [1]

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(iii) Write this total correct to the nearest £10. [1]

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11. Calculate each of the following.

    (a) $4 \cdot 8^2 + \sqrt{28 \cdot 09}$ [2]

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    (b) $\dfrac{4}{9}$ of $78 \cdot 3$ [1]

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11. *(a)*   Calculate $12\frac{1}{2}\%$ of 1176.   [2]

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    (b)   Evaluate $\dfrac{4 \cdot 3 \times 8 \cdot 6}{9 \cdot 3 - 1 \cdot 4}$.

            Give your answer correct to 1 decimal place.   [2]

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12. *(a)* Calculate 39% of £576. [2]

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(b) Calculate $\frac{3}{7}$ of 100.

Give your answer correct to the nearest whole number. [2]

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(c) How many quarters are there in 10? [1]

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(d) What **fraction** is equal to 50% of $\frac{1}{6}$? [1]

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(e) Circle the fraction that is a recurring decimal. [1]

$\frac{21}{35}$ $\qquad$ $\frac{10}{12}$ $\qquad$ $\frac{17}{68}$ $\qquad$ $\frac{15}{24}$ $\qquad$ $\frac{51}{170}$

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13. Fill in the boxes so that the following addition is correct. [3]

$$
\begin{array}{c}
\boxed{1}\ \boxed{}\ \boxed{9} \\
\boxed{7}\ \boxed{8}\ \boxed{}\quad + \\
\hline
\boxed{}\ \boxed{4}\ \boxed{1} \\
\hline
\end{array}
$$

Space for working:

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13. Show clearly whether the following statement is true or false. [4]

'If you increase a positive number by 10% and then decrease that new value by 10%, you get back to your original number.'

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14. Calculate the answer when,

'the largest prime number that is a factor of 28'

is multiplied by

'the smallest prime number that is factor of 15'. [2]

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15. Complete each row of the following table.
The first row has been done for you. [3]

Place	Temperature at midday	Change	Temperature at following midday
Holyhead	−1°C	Up 3°C	2°C
Dolgellau	−3°C		1°C
Cardigan	2°C	Down 3°C	
Newport		Up 2°C	−2°C

15. A task takes 6 hours 15 minutes to complete.

$\frac{2}{5}$ of this time is spent on planning.

How long was spent on the **rest of the task**?
Give your answer in hours and minutes.

You must show all your working. [5]

15. 18% of £256 is shared in the ratio 2 : 1.
Calculate the value of the larger share.
Give your answer to the nearest 10p.

You must show all your working. [5]

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16. A coach company runs trips to Llandudno and Aberystwyth.
The information kept by the company about the passengers on these trips includes:
  •   the destination of the trip,
  •   their ages.
The table below shows the number of passengers who went to Llandudno or Aberystwyth last Tuesday.

	Llandudno	Aberystwyth
Passengers 60 years old and over	323	217
Passengers under 60 years old	122	58

(a)   What was the ratio of passengers 60 years old and over to passengers under 60 years old?
Give your answer in its simplest form.   [3]

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Passengers 60 years old and over : passengers under 60 years old

= .... : ....