

ARITHMETIC HOMEWORK GUIDE

1 $40 + 1,000 =$

$$\begin{array}{r} 1000 \\ + 40 \\ \hline 1040 \end{array}$$

1040

1 mark

2 $707 + 1,818 =$

COLUMN ADDITION

$$\begin{array}{r} 1818 \\ + 707 \\ \hline 2525 \end{array}$$

2525

1 mark

3 $\frac{4}{6} + \frac{3}{6} =$

ADD THE NUMERATORS

$$\frac{4}{6} + \frac{3}{6} = \frac{7}{6}$$

THE DENOMINATOR STAYS THE SAME

$\frac{7}{6}$

1 mark

4 $505 \div 1 =$

ANY NUMBER $\div$ BY 1

EQUALS ITSELF

E.G.

$$325 \div 1 = 325$$

$$476 \div 1 = 476$$

$$752 \div 1 = 752$$

505

1 mark

5 $345 - 60 =$

$$\begin{array}{r} 345 \\ - 60 \\ \hline 285 \end{array}$$

285

1 mark

6 $2.7 + 3.014 =$

USE PLACE HOLDERS TO MAKE THE DECIMALS HAVE

THE SAME NUMBER OF DECIMAL PLACES

$$\begin{array}{r} 3.014 \\ + 2.700 \\ \hline 5.714 \end{array}$$

DON'T FORGET THE DECIMAL POINT!

5.714

DECIMALS IN A STRAIGHT LINE LIKE BUTTONS ON A SHIRT

1 mark



7

$$5100 = 4,500 + 600$$

IT DOES NOT MATTER IF THE ANSWER BOX IS ON THE LEFT.

$$\begin{array}{r} 4500 \\ + 600 \\ \hline 5100 \end{array}$$



1 mark

8

$8 \times 33 =$

COLUMN MULTIPLICATION

$$\begin{array}{r} 33 \\ \times 8 \\ \hline 264 \end{array}$$

264



1 mark

9

$72 \div 9 =$

TIMES TABLE KNOWLEDGE

"HOW MANY 9s GO INTO 72."

8



1 mark

10

$167 \times 4 =$

SHORT MULTIPLICATION

$$\begin{array}{r} 167 \\ \times 4 \\ \hline 668 \end{array}$$

668



1 mark

11

$4,912 - 824 =$

COLUMN SUBTRACTION

$$\begin{array}{r} 4912 \\ - 824 \\ \hline 4088 \end{array}$$

4088



1 mark

12

$\frac{62}{100} - \frac{38}{100} =$

IF THE DENOMINATORS ARE THE SAME, SUBTRACT NUMERATOR

$$\begin{array}{r} 62 \\ - 38 \\ \hline 24 \end{array}$$

DENOMINATOR WILL STAY AS 100

$$\frac{24}{100}$$



1 mark

13

1159

$$- 100 = 1,059$$

THIS MUST BE
GREATER
THAN 1059

USE INVERSE

$$1059 + 100 = 1159$$

CHECK THAT YOUR ANSWER
MAKES SENSE!

1 mark

14

$$50 + (36 \div 6) =$$

WHEN THERE IS MORE
THAN ONE OPERATION, USE
BIDMAS!

$$50 + 6 = 56$$

BRACKETS
INDICES
DIVISION
MULTIPLICATION
ADDITION
SUBTRACTION

56

1 mark

15

$$\frac{4}{6} \times \frac{3}{5} =$$

WHEN MULTIPLYING FRACTIONS,
MULTIPLY THE NUMERATORS AND
MULTIPLY THE DENOMINATORS

$$\begin{array}{r} 4 \times 3 \\ \hline 6 \times 5 \end{array}$$

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

$$(6 \times 5 = 30)$$

YOU DON'T NEED
TO SIMPLIFY!

$$\frac{12}{30}$$

1 mark

16

$$30 \times 40 =$$

USE TIMES TABLE FACTS

I KNOW $3 \times 4 = 12$
SO I KNOW $30 \times 4 = 120$
THEREFORE $30 \times 40 = 1200$

1200

1 mark

17

$$581 \div 7 =$$

BUS STOP

$$\begin{array}{r} 083 \\ 7 \overline{) 558} \end{array}$$

TOP TIP - SPACE OUT YOUR
DIGITS!

83

1 mark

18

$$0.04 \div 10 =$$

WHEN $\times$ or $\div$ by 10, 100, or 1000
DRAW A PLACE VALUE GRID.

$$\begin{array}{|c|c|c|c|} \hline 0 & 0 & 4 & \\ \hline 0 & 0 & 0 & 4 \\ \hline \end{array}$$

WHEN $\div$ by 10,
DIGITS MOVE 1
PLACE TO THE
RIGHT!

0.004

1 mark

19

$2,345 \times 1,000 =$

MULTPLYING BY 1,000

2 3 4 5
2 3 4 5 0 0 0

WHEN $\times$ by 1000,
DIGITS MOVE 3
PLACES TO THE
LEFT!

DON'T FORGET
PLACE HOLDERS.

2345000

1 mark

20

BUS STOP

10 7
1 7 | 7 1 4

0 4 2
1 7 | 7 1 3 4

WRITE 17
10 $\times$ 7 $\times$ TIMES TABLE

17 INTO 71 = 4 r 3

Show your method

10 $\div$ 7 = 1 r 3
20 $\div$ 14 = 3 r 4
30 $\div$ 21 = 5 r 1
40 $\div$ 28 = 6 r 8
50 $\div$ 35 = 8 r 5

42

2 marks

IN THE SATS TEST, YOUR
ANSWER FOR BUS STOP WILL
ALWAYS BE A WHOLE NUMBER

21

$9 - 3.45 =$

Make the whole number
into a decimal

9.00
- 3.45
5.55

DON'T FORGET DECIMAL POINT

5.55

1 mark

22

LONG MULTIPLICATION

4 7 8 1
 $\times$ 23
1 4 3 4 3 ($\times 3$)
+ 9 5 6 2 0 ($\times 20$)
1 0 9 9 6 3

Show your method

DON'T FORGET
PLACE HOLDER
WHEN MULTIPLYING
THE TENS DIGIT.

109963

2 marks

23

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

WHEN ADDING OR SUBTRACTING FRACTIONS YOU NEED TO MAKE THE DENOMINATORS THE SAME

(COMMON DENOMINATOR)

$$\begin{array}{r} \frac{3}{4} = \frac{3 \times 2}{4 \times 2} = \frac{6}{8} \\ \frac{3}{8} = \frac{3}{8} \\ \hline \frac{6}{8} - \frac{3}{8} = \frac{3}{8} \end{array}$$

$$\frac{3}{8}$$

WHAT YOU DO TO THE BOTTOM, YOU DO TO THE TOP!

1 mark

24

$$\begin{array}{r} 418 \\ \times 46 \\ \hline \end{array}$$

$$\begin{array}{r} 2508 \\ + 16720 \\ \hline 19228 \end{array}$$

← DON'T FORGET PLACE HOLDER

Show your method

$$19228$$

2 marks

25

MAKE BOTH DECIMALS HAVE THE SAME NUMBER OF DECIMAL PLACES

$$\begin{array}{r} 37.800 \\ - 14.671 \\ \hline 23.129 \end{array}$$

$$23.129$$

1 mark

26

FIND LOWEST COMMON MULTIPLE

$$\frac{1}{4} + \frac{1}{5} + \frac{1}{10} =$$

4: 4, 8, 12, 16, 20
5: 5, 10, 15, 20
10: 10, 20

$$\begin{array}{r} \frac{1}{4} = \frac{5}{20} \\ \frac{1}{5} = \frac{4}{20} \\ \frac{1}{10} = \frac{2}{20} \\ \hline \frac{5}{20} + \frac{4}{20} + \frac{2}{20} = \frac{11}{20} \end{array}$$

$$\frac{11}{20}$$

1 mark

27

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

THE NUMERATOR STAYS THE SAME!

$$\frac{4}{5} \div 4 = \frac{4}{20}$$

MULTIPLY THE DENOMINATOR BY THE WHOLE NUMBER

$$\frac{4}{20}$$

1 mark

28

$$\frac{5}{8} \div 2 =$$

DIVIDE FRACTION BY WHOLE NUMBER

$$\frac{5}{8} \div 2 = \frac{5}{16}$$

$$\frac{5}{16}$$

1 mark

29

FIND % OF AMOUNTS 10% $\rightarrow \div$ by 10
45% of 460 = 5% $\rightarrow$ half 10%.

SPLIT THE PERCENTAGE

$$\begin{array}{r} 46 \\ \times 4 \\ \hline 184 \end{array}$$

$$\begin{array}{r} 10\% = 46 \\ \times 4 \\ \hline 40\% = 184 \\ 5\% = 23 \\ \hline 45\% = 207 \end{array}$$

$$207$$

1 mark

30

SPLIT THE MIXED NUMBER INTO
A WHOLE AND A FRACTION
 $2\frac{1}{3} + \frac{5}{6} =$

$$2 + \frac{1}{3} + \frac{5}{6}$$

$$\frac{2}{6} + \frac{5}{6} = \frac{7}{6} = 1\frac{1}{6}$$

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

$$3\frac{1}{6}$$

1 mark

31

7% of 500 =

5% $\rightarrow$ half 10%1% $\rightarrow \div 100$

$$\begin{array}{r} 5\% = 25 \\ 1\% = 5 \\ 1\% = 5 \\ \hline 7\% = 35 \end{array}$$

$$\rightarrow (10\% = 50) \div 2$$

$$5\% = 25$$

$$1\% = 5$$

$$35$$

1 mark

32

$$\frac{2}{6} - \frac{1}{8} =$$

FIND LOWEST COMMON MULTIPLE

6: 6, 12, 18, 24

8: 8, 16, 24

$$\begin{array}{r} 8 \\ \times 3 \\ \hline 24 \end{array} \quad \begin{array}{r} 3 \\ \times 8 \\ \hline 24 \end{array} \quad \begin{array}{r} 5 \\ \times 5 \\ \hline 24 \end{array}$$

$$\frac{5}{24}$$

1 mark

33

ESTIMATE FIRST $\rightarrow 1 \times 200 = 200$
 $0.9 \times 200 =$ I KNOW MY ANSWER WILL BE CLOSE TO 200

$$\begin{aligned} 9 \times 2 &= 18 \\ 9 \times 20 &= 180 \\ 9 \times 200 &= 1800 \end{aligned}$$

$\div 10$
 $0.9 \times 200 = 180$

180

1 mark

34

$15\% \times 1,000 =$ THE MULTIPLICATION SYMBOL ALSO MEANS 'OF'

15% of 1000

$$\begin{aligned} 10\% &= 100 \\ 5\% &= 50 \\ \hline 15\% &= 150 \end{aligned}$$

150

1 mark

35

$1\frac{1}{2} \times 57 =$

SPLIT THE MIXED NUMBER

$1 \times 57 = 57$

$$\begin{array}{r} 1 \times 57 = 57 \\ 2 \times 28.5 = 57 \\ \hline \text{HALF OF 57} \end{array}$$

$$\begin{array}{r} 57.0 \\ + 28.5 \\ \hline 85.5 \end{array}$$

85.5

1 mark

36

$$\begin{array}{r} 50 \quad 9 \\ \times 59 \\ \hline 5 \quad 9 \quad 2 \quad 2 \quad 4 \quad 2 \end{array}$$

BUS STOP

$$\begin{array}{r} 0 \quad 0 \quad 38 \\ 59 \overline{) 2244} \end{array}$$

Show your method

$$\begin{aligned} 50 + 9 &= 59 \quad ① \\ 100 + 18 &= 118 \quad ② \\ 150 + 27 &= 177 \quad ③ \\ 200 + 36 &= 236 \quad ④ \\ 250 + 45 &= 295 \quad ⑤ \\ 300 + 54 &= 354 \quad ⑥ \\ 350 + 63 &= 413 \quad ⑦ \end{aligned}$$

$59 \text{ into } 224 = 3 \text{ r } 47$

$59 \text{ into } 472 = 8$

38

2 marks

$$\begin{array}{r} 400 + 72 = 472 \quad ⑧ \\ 224 \\ - 177 \\ \hline 47 \end{array}$$