



KS2.M-Y6N1 Place Value and the Four Operations

Calculators not allowed • about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 Write these numbers in words.

(a) 6,304,219 (1)

(b) 10,005,007 (1)

2 Round 3,486,241 to the nearest 100,000. Then round the same number to the nearest 10,000.

(a) Nearest 100,000 (1)

(b) Nearest 10,000 (1)

3 Calculate $4,208 \times 36$ using long multiplication. Give your final answer.

(a) $4,208 \times 36$ (2)

.....

4 Work out 9,504,321 minus 2,718,439.

(1)

5 A school orders 4,275 pencils. They pack pencils into boxes of 12. How many full boxes can they fill? How many pencils are left over?

(a) Number of full boxes (1)

(b) Pencils left over (1)

6 Explain why 0.75 of a million is 750,000. Show your reasoning.

(3)

7 Calculate $72,900 \div 15$. Show any working.

(2)

8 A gardener plants 4 rows of trees. Each row will have 1,275 trees. How many trees are planted altogether?

(2)

9 Write 4,560,000 as a product of a single digit and a power of ten.

(1)

10 Find the value of x : $x + 3,204 = 9,871$. Then calculate $2x$.

(a) Value of x

(1)

(b) Calculate $2x$

(1)

11 Multiply 8,305 by 407. Show your method and give the final answer.

(2)

12 A factory makes 2,345 toys each day. How many toys does it make in 28 days? Show your working.

(3)

13 What is the digit in the ten thousands place of 7,902,345?

(1)

14 Sofia saves 1,250 each month. How much will she have saved after 3 years?

(2)

15 A library has 12,480 books. They put books into shelves holding 24 books each. How many shelves are needed to hold all the books? If the last shelf can be partly filled, state how many books go on that shelf.

(a) Number of shelves needed

(1)

(b) Books on the last shelf

(1)

16 Decrease 2,500,000 by 12%. Give your answer to the nearest whole number.

(2)

17 Explain which is larger and why: $5,600,000 + 45,000$ or $5,645,000$. Show your reasoning clearly.

(3)

18 Find the value of $1,234,567 \div 9$ giving the integer quotient and the remainder.

(3)

Mark scheme · KS2.M-Y6N1 Place Value and the Four Operations

Question 1

- (a) **B1** six million, three hundred and four thousand, two hundred and nineteen cao
- (a) Answer: **six million, three hundred and four thousand, two hundred and nineteen**
- (b) **B1** ten million, five thousand and seven cao
- (b) Answer: **ten million, five thousand and seven**

Question 2

- (a) **B1** 3,500,000 cao
- (a) Answer: **3,500,000**
- (b) **B1** 3,490,000 cao
- (b) Answer: **3,490,000**

Question 3

- (a) **M1** Correct long multiplication method shown (partial products) with one correct intermediate line
- (a) **B1** 151,488 cao
- (a) Answer: **151,488**

Question 4

- **B1** 6,785,882 cao
- Answer: **6,785,882**

Question 5

- (a) **B1** 356 cao
- (a) Answer: **356**
- (b) **B1** 3 cao
- (b) Answer: **3**

Question 6

- **M1** Shows multiplying 1,000,000 by 0.75 or converting 0.75 to $\frac{3}{4}$ and applying to 1,000,000
- **M1** Shows correct intermediate calculation, e.g. $1,000,000 \times 0.75 = 750,000$ or $1,000,000 \div 4 = 250,000$ then $\times 3$
- **B1** Conclusion stated: 750,000 cao
- Answer: **750,000**

Question 7

- **M1** Correct long division or chunking method shown
- **B1** 4,860 cao
- Answer: **4,860**

Question 8

- **M1** Shows multiplication method or repeated addition
- **B1** 5,100 cao
- Answer: **5,100**

Question 9

- **B1** 4.56×10^6 or equivalent accepted, but must be in form single digit times power of ten
- Answer: **4.56×10^6**

Question 10

- (a) **B1** 6,667 cao
- (a) Answer: **6,667**
- (b) **B1** 13,334 cao
- (b) Answer: **13,334**

Question 11

- **M1** Correct method shown for long multiplication including multiplication by 400, 0, 7 or equivalent partitioning
- **B1** 3,380,135 cao
- Answer: **3,380,135**

Question 12

- **M1** Shows multiplication method or partitioning, e.g. $2,345 \times 20$ and $\times 8$
- **M1** Second correct intermediate step
- **B1** 65,660 cao
- Answer: **65,660**

Question 13

- **B1** 0 cao
- Answer: **0**

Question 14

- **M1** Shows $1,250 \times 36$ or equivalent calculation
- **B1** 45,000 cao
- Answer: **45,000**

Question 15

- (a) **B1** 520 cao
- (a) Answer: **520**
- (b) **B1** 24 cao
- (b) Answer: **24**

Question 16

- **M1** Shows correct method to find 12% of 2,500,000 or finds 88% directly
- **B1** 2,200,000 cao
- Answer: **2,200,000**

Question 17

- **M1** Shows calculation of $5,600,000 + 45,000 = 5,645,000$ or an equivalent comparison
- **M1** Shows idea of comparing place values or recomputing the sum
- **B1** Correct conclusion that they are equal: 5,645,000 cao
- Answer: **5,645,000**

Question 18

- **M1** Shows correct division steps or a correct method to find quotient and remainder
- **M1** Shows correct intermediate result
- **B1** 137,174 remainder 1 cao
- Answer: **137,174 remainder 1**