# Maths Test Bank Year 4

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A
FIVE SENSES
PUBLICATION

SAMPLE

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SAMPLE

# 1A Place value (Part 1)

## 1 Shade one bubble

What is the largest number in this set of numbers?

- ◯ 375
- ◯ 735
- ◯ 753
- ◯ 357

## 2 Shade one bubble

What is the smallest number that can be made using each digit once?

5, 4, 8, 2

- ◯ 2485
- ◯ 2458
- ◯ 2548
- ◯ 2584

## 3 Shade one bubble

The number that is one more than 3989 is:

- ◯ 4000
- ◯ 4990
- ◯ 3999
- ◯ 3990

## 4 Write on the lines

Write 40 219 in words.

## 5 Shade one bubble

Rounded to the nearest thousand, 5199 becomes:

- ◯ 1000
- ◯ 3000
- ◯ 5000
- ◯ 7000

## 6 Shade one bubble

30 000 + 2000 + 400 + 7 is the same as:

- ◯ 30 247
- ◯ 30 407
- ◯ 32 470
- ◯ 32 407

## 7 Write on the lines

Write **in words** the number that is **ten thousand more** than 45 506.

## 8 Write on the lines

Write **in words** the number that is **one thousand less** than 70 458.

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**1** The local bank has a box of $100 notes and a box of $10 notes. There are 245 notes in each box.

**a** How much is in each box?

b. Write in words the value of the box of $100 notes.

c. If there were a box containing the same number of $20 notes, what would be the value of the notes in the box?

**2** If 11 887 people were at a rock concert, this number could be rounded to the nearest ten like this: 11 890. It could also be rounded in other ways.

**a** Write two other ways of rounding 11 887.

**b** Which rounded number would you use if you were writing a newspaper headline? Give a reason for your answer.

**3** To the nearest thousand, the 2012 population of Ballarat, Victoria, was 94 000.
The actual number can be made using each of these digits once:

1, 3, 5, 9, 0

List the two numbers that could have been the actual 2012 population of Ballarat.

**4** Angus and Ivy were watching a TV game show. The prize money was shown like this:

| | | | | | |
|---|---|---|---|---|---|
| $ | 2 | 4 | 8 | 7 | 9 |

The winner could choose money to the value of **one** of the digits. Ivy said she would choose 9, because that is the biggest number. How could Angus explain to Ivy what the best choice would be?

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# 1B Mental strategies for addition (Part 1)

**1** Shade one bubble

Using rounding to the nearest ten, 79 + 32 becomes:

- ◯ 70 + 30
- ◯ 70 + 40
- ◯ 80 + 30
- ◯ 80 + 40

**2** Shade one bubble

The rounded estimate for the answer to 21 + 18 is:

- ◯ 20
- ◯ 30
- ◯ 40
- ◯ 50

**3** Shade one bubble

36 + 23 can be split like this:

- ◯ 30 + 60 + 2 + 3
- ◯ 30 + 60 + 20 + 3
- ◯ 30 + 20 + 6 + 30
- ◯ 30 + 20 + 6 + 3

**4** Shade one bubble

Split the numbers to add 53 + 36. The answer is:

- ◯ 89
- ◯ 83
- ◯ 59
- ◯ 56

**5** Shade one bubble

427 + 83 can be split like this:

- ◯ 400 + 20 + 80 + 7 + 3
- ◯ 400 + 800 + 20 + 7 + 3
- ◯ 40 + 20 + 80 + 7 + 3
- ◯ 400 + 200 + 80 + 7 + 3

**6** Shade one bubble

Split the numbers to add 635 + 165. The answer is:

- ◯ 700
- ◯ 690
- ◯ 800
- ◯ 790

**7** Write on the lines

Use a mental strategy to add 199 and 201. Explain how you got the answer.

**8** Write on the lines

Use a mental strategy to add 1524 and 375. Explain how you got the answer.

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# 1B Mental strategies for addition (Part 2)

**1** If you add 191 and 309, the answer is 500. These three additions are for numbers that could also be added to give a total of 500.

Follow the rules and make each addition correct:

- Each number that is added must be different.
- Each box must be filled.
- There can only be one zero in each number that is added.

**a** 1 □ □ + 3 □ □ = 5 0 0

**b** 1 □ □ + 3 □ □ = 5 0 0

**c** 1 □ □ + 3 □ □ = 5 0 0

**2** This is the way that Lucy found the answer to add 31 + 49:

"I added 3 tens and 4 tens, that makes 7 tens. Then I added 1 and 9, and that makes 8 tens altogether. So, 31 + 49 = 80."

**a** What is another way that you could add 31 + 49 in your head?

**b** Which strategy do you prefer? Say why.

**3** Max had to add 1 + 4 + 5 + 7 + 9 + 5 + 6 + 3.

In his mind, he added the numbers like this: 1 + 9 + 4 + 6 + 5 + 5 + 7 + 3

**a** How did this help Max?

**b** What is the answer to 1 + 4 + 5 + 7 + 9 + 5 + 6 + 3?

**4** **a** If you know that 7 + 9 = 16, it is easy to work out that 70 + 90 = :

◯ 106 ◯ 160

◯ 1600 ◯ 1006

**b** You know that 7 + 8 = 15. How could you explain to someone the answer to 700 + 800?

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# ANSWERS

## 1A (PART 1)

**1** 753 **2** 2458 **3** 3990

**4** forty thousand two hundred and nineteen

**5** 5000 **6** 32 407

**7** fifty-five thousand five hundred and six

**8** sixty-nine thousand four hundred and fifty-eight

## 1A (PART 2)

**1 a** $24 500 in the $100 note box, and $2450 in the $10 box

**1 b** twenty-four thousand five hundred dollars

**1 c** $4900

**2 a** 11 900 and 12 000

**2 b** Teacher to check, e.g. 12 000, because there is not much difference between 11 900 and 12 000 when you are describing a large crowd.

**3** 93 501 or 93 510 (actual population was 93 501)

**4** Teacher to check, e.g. he could say that the 9 was only worth $9 because it has a value of 9 ones. The 2 is worth the most because it is in the tens of thousands column, so it is worth $20 000.

## 1B (PART 1)

**1** 80 + 30 **2** 40

**3** 30 + 20 + 6 + 3 **4** 89

**5** 400 + 20 + 80 + 7 + 3

**6** 800

**7** 400; Teacher to check strategy, e.g. The first number is one less than 200 and the second number is one more than 200, so I added 200 + 200.

**8** 1899; Teacher to check strategy, e.g. I split the numbers and added 1000 + 500 + 300 + 20 + 70 + 4 + 5 = 1000 + 800 + 90 + 9 = 1899.

## 1B (PART 2)

**1** Teacher to check, e.g. 190 + 310. Look for students who see the pattern of increasing the 1st addend by one and decreasing the 2nd addend by one each time, to give the answer of 500.

**2 a** Teacher to check, e.g. I rounded 49 to 50. 31 + 50 = 81. I had added 1 more than I needed to, so I took 1 off the answer. So, 31 + 49 = 80.

**2 b** Teacher to check reasoning, e.g. I prefer Lucy's way because it is quicker.

**3 a** Teacher to check, e.g. He put numbers together that make 10. Then all he had to do was add 10 + 10 + 10 + 10.

**3 b** 40

**4 a** 160

**4 b** Teacher to check, e.g. 7 hundreds plus 8 hundreds makes 15 hundreds altogether. You write 15 hundreds like this: 1500.

## 1C (PART 1)

**1** 70 – 30 **2** 30

**3** take 10 away from 57 and then take away 4

**4** 52 **5** 45 – 20 then 25 – 8

**6** take 20 from 78 and then add 1 back

**7** Answer: 69. Teacher to check strategy, e.g. 92 – 20 = 72, 72 – 3 = 69

**8** Answer: 152; Teacher to check strategy, e.g. 275 – 100 = 175, 175 – 20 = 155, 155 – 3 = 152

## 1C (PART 2)

**1 a** Teacher to check, e.g. (the compensation strategy) taking away 50 from 74 = 24, then adding 1 back = 25

**1 b** Teacher to check, e.g. counting up, because it's easier to keep track of the numbers

**2** Teacher to check, e.g. Look for students who find the solution in a pattern, such as increasing each of the tens (or the ones) by one each time (77 – 63 = 14 etc., **or** 68 – 54 = 14 etc.).

**3** Charlie has 78 and Zoe has 59.

**4 a** 110

**4 b** Teacher to check, e.g. 260 is the same as 26 tens. 26 tens take away 7 tens makes 19 tens altogether. You write 19 tens like this: 190. So, 260 – 70 = 190.

## 1D (PART 1)

**1** 27 + 13 = 40 **2** 40 – 17 = 23

**3** (200 + 50 + 8) + (100 + 30 + 4)

**4** 59 **5** 392

**6** 125; Teacher to check strategy, e.g. 75 to 80 = 5, 380 to 400 = 20, 400 to 500 = 100: 100 + 20 + 5 = 125

**7** 906; Teacher to check strategy.

**8** 228; Teacher to check strategy.

## 1D (PART 2)

**1 a** 256

**1 b** Teacher to check, e.g. I used a number line.

**2 a** No, she was not correct. Teacher to check working.

**2 b** 136. Teacher to check strategy.

**3 a** 754 and 457 **b** 297

**4 a** $615 **b** $141 **c** $335

## 1E (PART 1)

**1** 16 **2** 24 **3** 21 **4** 32

**5** an odd number then an even number

**6** 24 and 32

**7** 5 **8** $72

## 1E (PART 2)

**1 a** 4

**1 b i** 6 **ii** 8 **iii** 3 **iv** 12

**2 a** 1 group of 20, 20 groups of 1, 2 groups of 10, 10 groups of 2, 4 groups of 5, 5 groups of 4

**2 b** Teacher to check, e.g. 4 groups of 5, so that you could have an even number teams to play against each other.

**3** Teacher to check, e.g.

**a** because the last digit is a 0

**b** because the last digit is even

**c** because the last digit is odd

**4** 36

## 1F (PART 1)

**1** 2 × 11 **2** 4 × 6

**3** 5 rows of 5 **4** $54

**5** 8 × 9 = 72 (or 9 × 8 = 72) and 72 ÷ 8 = 9 (or 72 ÷ 9 = 8)

**6** 8 × 7 = 56 (or 7 × 8 = 56) and 56 ÷ 8 = 7 (or 56 ÷ 7 = 8)

**7** 2 × 36, 4 × 18, 8 × 9

**8** 63 ÷ 9 = 7; 9 × 7 = 63; 7 × 9 = 63; 63 ÷ 7 = 9

## 1F (PART 2)

**1 a** Teacher to check, e.g. the numbers in the squares are in the 6 times table (accept 3 times) and the numbers in the circles are in the 7 times table.

**1 b** Both, because they are in the 6 × (accept 3 ×) and the 7 × table.

**2 a** 3 × 3 = 9 and 5 × 5 = 25

**2 b** Student draws a 2 × 2 pattern and a 4 × 4 pattern.

**2 c** 2 × 2 = 4 and 4 × 4 = 16

**3** Students write 8 (or more) facts: 1 × 30 = 30, 30 × 1 = 30, 2 × 15 = 30, 15 × 2 = 30, 3 × 10 = 30, 10 × 3 = 30, 5 × 6 = 30, 6 × 5 = 30

**4** Students write 8 (or more) facts: 40 ÷ 1 = 40, 40 ÷ 40 = 1, 40 ÷ 2 = 20, 40 ÷ 20 = 2, 40 ÷ 4 = 10, 40 ÷ 10 = 4, 40 ÷ 5 = 8, 40 ÷ 8 = 5

## 1G (PART 1)

**1** 320 **2** 34 **3** 42 ÷ 2

**4** 6 × 30 plus 6 × 5

**5** 110 **6** 15

**7** 258; Teacher to check, e.g. 40 × 6 = 240 + 3 × 6 = 18, 240 + 18 = 258

**8** 13; Teacher to check working, e.g. 70 ÷ 10 = 7. 21 ÷ 7 = 3. So 91 ÷ 7 = 10 + 3 = 13

SAMPLE

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