1.4 Place Value and Number Depth: 2-hour Pack

National Curriculum (2014) Mathematics - KS2 Number: Place Value to 10,000,000, Rounding, Negative Numbers, Powers of 10 · Calculators not allowed · about 120 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write 671,581 in words.

Answer: ___

(1)

---

2 On Monday the temperature was -15 degrees. On Tuesday it was 3 degrees.

What is the difference between the two temperatures?

Answer: ___ degrees

(2)

---

3 Write the number nine hundred and sixty-three thousand eight hundred in digits.

Answer: ___

(1)

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4 Find the missing number in this sequence.

928, 924, 920, ___, 912, 908

Answer: ___

(1)

---

5 Find the missing number in this sequence.

498, 523, 548, 573, 598, ___

Answer: ___

(1)

---

6 Write the Roman numeral CDXXVI as a number.

Answer: ___

(1)

---

7 Use inverse operations to find the missing number.

(a) A number is multiplied by 1000. The result is 45,000. What was the original number? **(1)**

.....

(b) A different number is divided by 100. The result is 0.6. What was the original number? **(1)**

.....

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8 The digit 5 appears twice in the number 5,350,000. The value of the left-hand 5 is how many times the value of the right-hand 5?

(2)

---

9 Zara has seven digit cards: 0, 2, 3, 4, 5, 7 and 9. She uses all seven cards, once each, to make a 7-digit number that is greater than 5,000,000. What is the smallest number she can make?

(3)

---

10 Find the missing number in this sequence.

672, 681, 690, 699, 708, ___

Answer: ___

(1)

---

11 A date on a monument is written MDCCXLIII. What year is that?

Answer: ___

(1)

---

12 What is the value of the digit 4 in 2,435?

Answer: ___

(1)

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13 Use each of the digits 2, 7, 4, 6 once to make the largest possible 4-digit number.

Answer: ___

(2)

---

14 Use each of the digits 9, 8, 2, 3 once to make the largest possible 4-digit number.

Answer: ___

(1)

---

15 Complete the partition.

411,333 = 400,000 + ___ + 1,000 + 300 + 30 + 3

Answer: ___

(1)

---

16 Write 964,310 in words.

Answer: ___

(1)

---

17 A car park has 52,232 spaces. 32,719 spaces are full and 327 are reserved.

How many spaces are free?

Answer: ___

(2)

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18 A date on a monument is written MDCCXIII. What year is that?

Answer: ___

(1)

---

19 Write the number six hundred and four thousand and forty-two in digits.

Answer: ___

(1)

---

20 Round 550,869 to the nearest ten.

Answer: ___

(1)

---

21 Find the missing number in this sequence.

927, 977, 1,027, 1,077, 1,127, ___

Answer: ___

(1)

---

22 Complete the partition.

5,934 = 5,000 + 900 + 30 + ___

Answer: ___

(1)

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23 Find the missing number in this sequence.

6,015, 6,265, ___, 6,765, 7,015, 7,265

Answer: ___

(1)

---

24 77 divided by ___ = 0.077

Answer: ___

(1)

---

25 What is 100 less than 356,470?

Answer: ___

(1)

---

26 Write 37 as a Roman numeral.

Answer: ___

(1)

---

27 Write 35,686 in words.

Answer: ___

(1)

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28 What is 1,000 more than 850,090?

Answer: ___

(1)

---

29 Write the Roman numeral CDXCII as a number.

Answer: ___

(1)

---

30 A number line starts at 0 and goes up in equal steps of 100. An arrow points to the 9th mark after the start.

What number does the arrow show?

Answer: ___

(1)

---

31 Write these numbers in order, starting with the smallest.

9, 7, -8, 1, -4

Answer: ___

(1)

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32 Find the missing number in this sequence.

11,102, 10,852, 10,602, 10,352, 10,102, ___

Answer: ___

(1)

---

33 Round 7,871 to the nearest ten.

Answer: ___

(1)

---

34 A number line starts at 1,000 and goes up in equal steps of 500. An arrow points to the 8th mark after the start.

What number does the arrow show?

Answer: ___

(1)

---

35 Use each of the digits 9, 7, 5, 4 once to make the smallest possible 4-digit number.

Answer: ___

(1)

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36 A number line starts at 50 and goes up in equal steps of 50. An arrow points to the 9th mark after the start.

What number does the arrow show?

Answer: ___

(1)

---

37 What is 10 less than 972,336?

Answer: ___

(1)

---

38 Round 4,248 to the nearest ten.

Answer: ___

(1)

---

39 What is the value of the digit 8 in 820,463?

Answer: ___

(1)

---

40 A date on a monument is written MDCCCLXIV. What year is that?

Answer: ___

(1)

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41 Write the Roman numeral DXXXIV as a number.

Answer: ___

(1)

---

42 What is the value of the digit 6 in 614,578?

Answer: ___

(1)

---

43 Complete the partition.

1,254 = 1,000 + ___ + 50 + 4

Answer: ___

(1)

---

44 Write <, > or = in the box.

30,917 [ ] 30,669

Answer: ___

(1)

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45 A number line starts at 0 and goes up in equal steps of 5,000. An arrow points to the 7th mark after the start.

What number does the arrow show?

Answer: ___

(1)

---

46 Find the missing number in this sequence.

496, 471, 446, 421, ___, 371

Answer: ___

(1)

---

47 Find the missing number in this sequence.

202, 197, 192, ___, 182, 177

Answer: ___

(1)

---

48 Find the missing number in this sequence.

366, 359, 352, 345, ___, 331

Answer: ___

(1)

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49 Write 731,100 in words.

Answer: ___

(1)

---

50 Use each of the digits 9, 8, 3, 5 once to make the smallest possible 4-digit number.

Answer: ___

(2)

---

51 Round 1,464 to the nearest hundred.

Answer: ___

(1)

---

52 Write these numbers in order, starting with the smallest.

988,725, 949,426, 977,773, 977,885

Answer: ___

(1)

---

53 Write these numbers in order, starting with the smallest.

3, -4, -1, -5, 5

Answer: ___

(1)

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54 Round 5,744 to the nearest hundred.

Answer: ___

(1)

---

55 What is the value of the digit 6 in 6,401?

Answer: ___

(1)

---

56 What is the value of the digit 1 in 1,972?

Answer: ___

(1)

---

57 Round 434,217 to the nearest ten.

Answer: ___

(1)

---

58 Write these numbers in order, starting with the smallest.

750,224, 781,932, 794,580, 747,397

Answer: ___

(1)

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59 Round 760,088 to the nearest thousand.

Answer: ___

(1)

---

60 Write these numbers in order, starting with the largest.

454,169, 429,305, 442,707, 427,134

Answer: ___

(1)

---

61 Complete the partition.

2,659 = 2,000 + 600 + 50 + ___

Answer: ___

(1)

---

62 Use each of the digits 5, 1, 6, 7 once to make the smallest possible 4-digit number.

Answer: ___

(2)

---

63 What is 12 less than 1?

Answer: ___

(1)

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64 Round 8,139 to the nearest ten.

Answer: ___

(1)

---

65 Write these numbers in order, starting with the largest.

476,609, 531,044, 480,901, 472,516

Answer: ___

(1)

---

66 Write these numbers in order, starting with the smallest.

827,693, 873,308, 823,090, 842,870

Answer: ___

(1)

---

67 Find the missing number in this sequence.

2,788, 2,688, 2,588, 2,488, 2,388, ___

Answer: ___

(1)

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68 Complete the partition.

6,971 = ___ + 900 + 70 + 1

Answer: ___

(1)

---

69 Use each of the digits 8, 4, 1, 5 once to make the largest possible 4-digit number.

Answer: ___

(2)

---

70 What is the value of the digit 2 in 4,267?

Answer: ___

(1)

---

71 What is the value of the digit 2 in 5,123?

Answer: ___

(1)

---

72 Write <, > or = in the box.

67,900 [ ] 68,017

Answer: ___

(1)

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73 What is the value of the digit 2 in 1,238?

Answer: ___

(1)

---

74 Round 2,957,438 to the nearest:

(a) 10 **(1)**

(b) 1,000 **(1)**

---

75 A crowdfunding campaign for a new community library has raised £2,847,650 so far.

(a) Round £2,847,650 to the nearest £100,000. **(1)**

(b) Round £2,847,650 to the nearest £10,000. **(1)**

(c) The campaign's target is £3,000,000. Using your rounded answer to part a, estimate how much more money is needed to reach the target. **(1)**

---

76 Order these temperatures from coldest to warmest: -8C, 3C, -15C, 0C, -2C, 6C

(1)

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77 The temperature in Aviemore at midnight was -6C.

(a) By 9am the temperature had risen by 9 degrees. What was the temperature at 9am? **(1)**

.....

(b) By midday the temperature had fallen by 11 degrees from the midnight temperature. What was the temperature at midday? **(1)**

.....

78 Work out the difference between each pair of numbers.

(a) -23 and 14 **(1)**

.....

(b) -8 and -35 **(1)**

.....

79 The population of a city is 4,996,500.

(a) Round the population to the nearest 1,000. **(1)**

(b) Round the population to the nearest 10,000. **(1)**

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Mark scheme · 1.4 Place Value and Number Depth: 2-hour Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

six hundred and seventy-one thousand five hundred and eighty-one cao — **B1**

Answer: **six hundred and seventy-one thousand five hundred and eighty-one**

Question 2

counts across zero — **M1**

18 degrees cao — **A1**

Answer: **18 degrees**

Question 3

963,800 cao — **B1**

Answer: **963,800**

Question 4

916 cao — **B1**

Answer: **916**

Question 5

623 cao — **B1**

Answer: **623**

Question 6

426 cao — **B1**

Answer: **426**

Question 7

(a) 45 cao — **B1**

(a) Answer: **45**

(b) 60 cao — **B1**

(b) Answer: **60**

Question 8

identifies the values of the two 5s as 5,000,000 and 50,000 (or states that the 5s are two columns apart) — **M1**

100 (times) cao — **A1**

Answer: **100 times**

Question 9

5 used as the millions digit (a smaller digit would give a number below 5,000,000) — **M1**

the remaining digits 0, 2, 3, 4, 7, 9 placed in ascending order — **M1**

5,023,479 cao — **A1**

Answer: **5,023,479**

Question 10

717 cao — **B1**

Answer: **717**

Question 11

1743 cao — **B1**

Answer: **1743**

Question 12

400 cao — **B1**

Answer: **400**

Question 13

digits placed in value order — **M1**

7,642 cao — **A1**

Answer: **7,642**

Question 14

9,832 cao — **B1**

Answer: **9,832**

Question 15

10,000 cao — **B1**

Answer: **10,000**

Question 16

nine hundred and sixty-four thousand three hundred and ten cao — **B1**

Answer: **nine hundred and sixty-four thousand three hundred and ten**

Question 17

33,046 seen — **M1**

19,186 cao — **A1**

Answer: **19,186**

Question 18

1713 cao — **B1**

Answer: **1713**

Question 19

604,042 cao — **B1**

Answer: **604,042**

Question 20

550,870 cao — **B1**

Answer: **550,870**

Question 21

1,177 cao — **B1**

Answer: **1,177**

Question 22

4 cao — **B1**

Answer: **4**

Question 23

6,515 cao — **B1**

Answer: **6,515**

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Question 24

1,000 cao **B1**

Answer: **1,000**

Question 25

356,370 cao **B1**

Answer: **356,370**

Question 26

XXXVII cao **B1**

Answer: **XXXVII**

Question 27

thirty-five thousand six hundred and eighty-six cao **B1**

Answer: **thirty-five thousand six hundred and eighty-six**

Question 28

851,090 cao **B1**

Answer: **851,090**

Question 29

492 cao **B1**

Answer: **492**

Question 30

900 cao **B1**

Answer: **900**

Question 31

-8, -4, 1, 7, 9 cao **B1**

Answer: **-8, -4, 1, 7, 9**

Question 32

9,852 cao **B1**

Answer: **9,852**

Question 33

7,870 cao **B1**

Answer: **7,870**

Question 34

5,000 cao **B1**

Answer: **5,000**

Question 35

4,579 cao **B1**

Answer: **4,579**

Question 36

500 cao **B1**

Answer: **500**

Question 37

972,326 cao **B1**

Answer: **972,326**

Question 38

4,250 cao **B1**

Answer: **4,250**

Question 39

800,000 cao **B1**

Answer: **800,000**

Question 40

1864 cao **B1**

Answer: **1864**

Question 41

534 cao **B1**

Answer: **534**

Question 42

600,000 cao **B1**

Answer: **600,000**

Question 43

200 cao **B1**

Answer: **200**

Question 44

> cao **B1**

Answer: **>**

Question 45

35,000 cao **B1**

Answer: **35,000**

Question 46

396 cao **B1**

Answer: **396**

Question 47

187 cao **B1**

Answer: **187**

Question 48

338 cao **B1**

Answer: **338**

Question 49

seven hundred and thirty-one thousand one hundred cao **B1**

Answer: **seven hundred and thirty-one thousand one hundred**

Question 50

digits placed in value order **M1**

3,589 cao **A1**

Answer: **3,589**

Question 51

1,500 cao **B1**

Answer: **1,500**

Question 52

949,426, 977,773, 977,885, 988,725 cao **B1**

Answer: **949,426, 977,773, 977,885, 988,725**

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Question 53

-5, -4, -1, 3, 5 cao **B1**

Answer: **-5, -4, -1, 3, 5**

Question 54

5,700 cao **B1**

Answer: **5,700**

Question 55

6,000 cao **B1**

Answer: **6,000**

Question 56

1,000 cao **B1**

Answer: **1,000**

Question 57

434,220 cao **B1**

Answer: **434,220**

Question 58

747,397, 750,224, 781,932, 794,580 cao **B1**

Answer: **747,397, 750,224, 781,932, 794,580**

Question 59

760,000 cao **B1**

Answer: **760,000**

Question 60

454,169, 442,707, 429,305, 427,134 cao **B1**

Answer: **454,169, 442,707, 429,305, 427,134**

Question 61

9 cao **B1**

Answer: **9**

Question 62

digits placed in value order **M1**

1,567 cao **A1**

Answer: **1,567**

Question 63

-11 cao **B1**

Answer: **-11**

Question 64

8,140 cao **B1**

Answer: **8,140**

Question 65

531,044, 480,901, 476,609, 472,516 cao **B1**

Answer: **531,044, 480,901, 476,609, 472,516**

Question 66

823,090, 827,693, 842,870, 873,308 cao **B1**

Answer: **823,090, 827,693, 842,870, 873,308**

Question 67

2,288 cao **B1**

Answer: **2,288**

Question 68

6,000 cao **B1**

Answer: **6,000**

Question 69

digits placed in value order **M1**

8,541 cao **A1**

Answer: **8,541**

Question 70

200 cao **B1**

Answer: **200**

Question 71

20 cao **B1**

Answer: **20**

Question 72

< cao **B1**

Answer: **<**

Question 73

200 cao **B1**

Answer: **200**

Question 74

(a) 2,957,440 cao **B1**

(a) Answer: **2,957,440**

(b) 2,957,000 cao **B1**

(b) Answer: **2,957,000**

Question 75

(a) £2,800,000 cao **B1**

(a) Answer: **£2,800,000**

(b) £2,850,000 cao **B1**

(b) Answer: **£2,850,000**

(c) £200,000 cao, follow through from part a **B1**

(c) Answer: **£200,000**

Question 76

-15, -8, -2, 0, 3, 6 cao, all six in the correct order **B1**

Answer: **-15C, -8C, -2C, 0C, 3C, 6C**

Question 77

(a) 3C cao **B1**

(a) Answer: **3C**

(b) -17C cao **B1**

(b) Answer: **-17C**

Question 78

(a) 37 cao **B1**

(a) Answer: **37**

(b) 27 cao **B1**

(b) Answer: **27**

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Question 79

(a) 4,997,000 cao **B1**

(a) Answer: **4,997,000**

(b) 5,000,000 cao **B1**

(b) Answer: **5,000,000**

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