1.6 Place Value: 2-hour Pack

EDEXCEL 1MA1 · Calculator allowed · about 120 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write these numbers in order of size, starting with the smallest: 3.472, 2.24, 2.87, 8.05

(Total for Question 1 is 2 marks)

2 Here are four digit cards: 1, 4, 2, 7. Use all four cards to make the largest possible 4-digit number and the smallest possible 4-digit number. Work out the difference between them.

(Total for Question 2 is 3 marks)

3 Write these numbers in order of size, starting with the smallest: 1.73, 7.38, 3.854, 5.65

(Total for Question 3 is 2 marks)

4 Write down the value of the digit 5 in the number 965,661.

(Total for Question 4 is 1 mark)

© Revision Library | revisionlibrary.co.uk

5 Write the number seven hundred and seventy-one thousand nine hundred and nineteen in figures.

(Total for Question 5 is 1 mark)

---

6 Write these numbers in order of size, starting with the smallest: 7.8, 1.014, 9.11, 3.48

(Total for Question 6 is 2 marks)

---

7 Write the number 20,250 in words.

(Total for Question 7 is 1 mark)

---

8 Write these numbers in order of size, starting with the smallest: 0.173, 4.16, 0.33, 1.072

(Total for Question 8 is 2 marks)

© Revision Library | revisionlibrary.co.uk

9 Work out the answer to each calculation.

(a) 7.3 x 10 **(1)**

.....

(b) 45 / 100 **(1)**

.....

(c) 6.08 x 1000 **(1)**

.....

(d) 88,000 / 1000 **(1)**

.....

(Total for Question 9 is 4 marks)

---

10 The number 5.372 is written on a card.

(a) Write down the value of the digit 7 in the number 5.372. **(1)**

.....

(b) Write down the value of the digit 3 in the number 5.372. **(1)**

.....

(Total for Question 10 is 2 marks)

---

11 Here are five numbers:
0.6 0.56 0.065 0.605 0.5
Write down these numbers in order of size, starting with the smallest.

(Total for Question 11 is 2 marks)

© Revision Library | revisionlibrary.co.uk

12 The table shows the number of tickets sold for three concerts.

Manchester 308,540 Bristol 27,916 Glasgow 194,065

(a) Write down the value of the digit 8 in the number of tickets sold in Manchester. **(1)**

.....

(b) Write down the value of the digit 9 in the number of tickets sold in Glasgow. **(1)**

.....

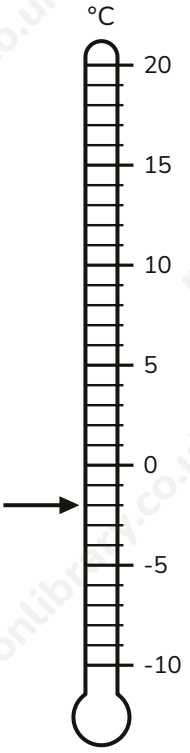
(c) Which venue sold the most tickets? **(1)**

(Total for Question 12 is 3 marks)

---

13 The diagram shows a thermometer used to record the outdoor temperature one morning in January.

Write down the temperature shown by the arrow.



(Total for Question 13 is 1 mark)

© Revision Library | revisionlibrary.co.uk

14 This question is about converting units of mass using place value.

(a) A parcel has a mass of 3.6 kg. Write this mass in grams. **(1)**

(b) A second parcel has a mass of 275 g. Write this mass in kilograms. **(1)**

(Total for Question 14 is 2 marks)

---

15 A sprinter's time for the 100 metres was 9.58 seconds.

(a) Write down the value of the digit 5 in 9.58. **(1)**

.....

(b) Write 9.58 in words. **(1)**

(Total for Question 15 is 2 marks)

---

16 A marathon had 24,517 runners registered to take part.

(a) Round 24,517 to the nearest 1000. **(1)**

(b) Round 24,517 to the nearest 10,000. **(1)**

(Total for Question 16 is 2 marks)

© Revision Library | revisionlibrary.co.uk

17 Work out the answer to each calculation.

(a) 4.6 x 100 **(1)**

.....

(b) 930 / 10 **(1)**

.....

(c) 0.52 x 1000 **(1)**

.....

(d) 7200 / 100 **(1)**

.....

(Total for Question 17 is 4 marks)

---

18 Here are the bank balances, in pounds, of five friends:
Jamal +85 Priya -40 Callum -120 Erin +15 Oliwia -65

(a) Write down these balances in order, starting with the most overdrawn (the lowest). **(1)**

.....

(b) Work out the total of all five balances. **(2)**

.....

(Total for Question 18 is 3 marks)

---

19 Work out 8 tens + 5 ones.

(Total for Question 19 is 1 mark)

---

20 Write as an integer: 3 hundreds + 2 tens + 7 ones.

(Total for Question 20 is 1 mark)

© Revision Library | revisionlibrary.co.uk

21 What is the value of the digit 6 in the number 5,604?

(Total for Question 21 is 1 mark)

---

22 What is the digit in the hundredths place of 12.708?

(Total for Question 22 is 1 mark)

---

23 Write as an integer: 5 ten-thousands + 2 thousands + 9 tens.

(Total for Question 23 is 1 mark)

---

24 What is the value of the digit 4 in the number 34,801?

(Total for Question 24 is 1 mark)

---

25 What is the value of the digit 9 in the number 7.196?

(Total for Question 25 is 1 mark)

---

26 A market trader has 197 boxes of apples. Each box holds 48 apples.
By rounding each number to 1 significant figure, work out an estimate for the total number of apples.

(Total for Question 26 is 3 marks)

© Revision Library | revisionlibrary.co.uk

27 Using each of the digits 3, 0, 6 and 8 exactly once,

(a) write down the largest possible 4-digit number. **(1)**

.....

(b) write down the smallest possible 4-digit number (it must not start with 0). **(1)**

.....

(Total for Question 27 is 2 marks)

---

28 Each calculation involves multiplying or dividing by 10, 100 or 1000. Work out the missing number in each.

(a) 3.2 x ___ = 320 **(1)**

.....

(b) 5600 / ___ = 5.6 **(1)**

.....

(Total for Question 28 is 2 marks)

---

29 This question is about rounding to a given number of significant figures.

(a) Round 6,472 to 1 significant figure. **(1)**

(b) Round 6,472 to 2 significant figures. **(1)**

(c) Round 0.0368 to 1 significant figure. **(1)**

(Total for Question 29 is 3 marks)

---

30 Work out 0.345 multiplied by 10.

(Total for Question 30 is 1 mark)

© Revision Library | revisionlibrary.co.uk

31 Divide 4.2 by 100. Give your answer as a decimal.

(Total for Question 31 is 1 mark)

---

32 Write 5.032 as a number of thousandths.

(Total for Question 32 is 1 mark)

---

33 Round 12.996 to 2 decimal places.

(Total for Question 33 is 1 mark)

---

34 Round 14.85 to 1 decimal place.

(Total for Question 34 is 1 mark)

---

35 Work out 5.6 divided by 10.

(Total for Question 35 is 1 mark)

---

36 Work out 0.47 multiplied by 100.

(Total for Question 36 is 1 mark)

---

37 A charity trust manages a fund worth £2,456,780. A local group receives a grant equal to one thousandth (1/1000) of the fund, rounded to the nearest £10.
Work out the amount of the grant.

(Total for Question 37 is 3 marks)

© Revision Library | revisionlibrary.co.uk

38 Work out 4,075 divided by 1000. Give your answer as a decimal.

(Total for Question 38 is 2 marks)

---

39 A piece of string is 0.678 m long. Work out its length in centimetres.

(Total for Question 39 is 2 marks)

---

40 Work out 45,600 divided by 1000.

(Total for Question 40 is 2 marks)

---

41 Work out 3,450 divided by 1000. Give your answer as a decimal.

(Total for Question 41 is 2 marks)

---

42 Work out 6.789 multiplied by 1000.

(Total for Question 42 is 2 marks)

---

43 0.6 x ___ = 60
Work out the missing number.

(Total for Question 43 is 2 marks)

© Revision Library | revisionlibrary.co.uk

44 5,300 / ___ = 5.3
Work out the missing number.

(Total for Question 44 is 2 marks)

---

45 A bottle contains 0.75 litres of water.
Work out the volume of water in millilitres.

(Total for Question 45 is 2 marks)

---

46 Priya divides 830 by 100 and writes down 0.83.
Explain the mistake Priya has made, and write down the correct answer.

(Total for Question 46 is 2 marks)

---

47 Rhys works out 0.28 multiplied by 100, then divides his answer by 10.

(a) Work out 0.28 multiplied by 100. **(1)**

(b) Now divide your answer to part (a) by 10. **(1)**

(Total for Question 47 is 2 marks)

© Revision Library | revisionlibrary.co.uk

48 Work out 0.526 multiplied by 10,000.

(Total for Question 48 is 2 marks)

---

49 A number x is divided by 100 to give z. The value z, rounded to 2 decimal places, is 3.82.
Work out the possible range of values of x.

(Total for Question 49 is 3 marks)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 1.6 Place Value: 2-hour Pack

Question 1

attempts to compare place by place or writes with equal decimal places — **M1**

2.24, 2.87, 3.472, 8.05 cao — **A1**

Answer: 2.24, 2.87, 3.472, 8.05

Question 2

7421 seen — **B1**

1247 seen — **B1**

6174 cao — **B1**

Answer: 6174

Question 3

attempts to compare place by place or writes with equal decimal places — **M1**

1.73, 3.854, 5.65, 7.38 cao — **A1**

Answer: 1.73, 3.854, 5.65, 7.38

Question 4

5,000 cao — **B1**

Answer: 5000

Question 5

771919 cao — **B1**

Answer: 771919

Question 6

attempts to compare place by place or writes with equal decimal places — **M1**

1.014, 3.48, 7.8, 9.11 cao — **A1**

Answer: 1.014, 3.48, 7.8, 9.11

Question 7

twenty thousand two hundred and fifty cao — **B1**

Answer: twenty thousand two hundred and fifty

Question 8

attempts to compare place by place or writes with equal decimal places — **M1**

0.173, 0.33, 1.072, 4.16 cao — **A1**

Answer: 0.173, 0.33, 1.072, 4.16

Question 9

(a) 73 cao — **B1**

(a) Answer: 73

(b) 0.45 cao — **B1**

(b) Answer: 0.45

(c) 6080 cao — **B1**

(c) Answer: 6080

(d) 88 cao — **B1**

(d) Answer: 88

Question 10

(a) 0.07 oe (7 hundredths) — **B1**

(a) Answer: 0.07 (7 hundredths)

(b) 0.3 oe (3 tenths) — **B1**

(b) Answer: 0.3 (3 tenths)

Question 11

at least 3 of the 5 numbers placed in correct relative order oe — **M1**

0.065, 0.5, 0.56, 0.6, 0.605 cao — **A1**

Answer: 0.065, 0.5, 0.56, 0.6, 0.605

Question 12

(a) 8000 oe (eight thousand) — **B1**

(a) Answer: 8000

(b) 90000 oe (ninety thousand) — **B1**

(b) Answer: 90,000

(c) Manchester cao — **B1**

(c) Answer: Manchester

Question 13

-2 (°C) cao — **B1**

Answer: -2°C

Question 14

(a) 3600 (g) cao — **B1**

(a) Answer: 3600 g

(b) 0.275 (kg) cao — **B1**

(b) Answer: 0.275 kg

Question 15

(a) 0.5 oe (5 tenths) — **B1**

(a) Answer: 0.5 (5 tenths)

(b) nine point five eight oe — **B1**

(b) Answer: Nine point five eight

Question 16

(a) 25000 cao — **B1**

(a) Answer: 25,000

(b) 20000 cao — **B1**

(b) Answer: 20,000

Question 17

(a) 460 cao — **B1**

(a) Answer: 460

(b) 93 cao — **B1**

(b) Answer: 93

(c) 520 cao — **B1**

(c) Answer: 520

(d) 72 cao — **B1**

(d) Answer: 72

© Revision Library | revisionlibrary.co.uk

Question 18

(a) -120, -65, -40, 15, 85 cao **B1**

(a) Answer: -120, -65, -40, +15, +85

(b) attempts to add all five balances with correct signs oe **M1**

(b) -125 (pounds) cao **A1**

(b) Answer: -£125

Question 19

85 cao **B1**

Answer: 85

Question 20

327 cao **B1**

Answer: 327

Question 21

600 cao **B1**

Answer: 600

Question 22

0 cao **B1**

Answer: 0

Question 23

52090 cao **B1**

Answer: 52090

Question 24

4000 cao **B1**

Answer: 4000

Question 25

0.09 oe (9 hundredths) cao **B1**

Answer: 0.09

Question 26

rounds 197 to 200 and 48 to 50 oe **M1**

dep multiplies the two rounded values **M1**

10000 cao, ft from correctly rounded values **A1**

Answer: 10,000 apples (estimate)

Question 27

(a) 8630 cao **B1**

(a) Answer: 8630

(b) 3068 cao **B1**

(b) Answer: 3068

Question 28

(a) 100 cao **B1**

(a) Answer: 100

(b) 1000 cao **B1**

(b) Answer: 1000

Question 29

(a) 6000 cao **B1**

(a) Answer: 6000

(b) 6500 cao **B1**

(b) Answer: 6500

(c) 0.04 cao **B1**

(c) Answer: 0.04

Question 30

3.45 cao **B1**

Answer: 3.45

Question 31

0.042 cao **B1**

Answer: 0.042

Question 32

5032 thousandths cao **B1**

Answer: 5032 thousandths

Question 33

13.00 cao **B1**

Answer: 13.00

Question 34

14.9 cao **B1**

Answer: 14.9

Question 35

0.56 cao **B1**

Answer: 0.56

Question 36

47 cao **B1**

Answer: 47

Question 37

divides 2456780 by 1000 to get 2456.78 oe **M1**

dep rounds 2456.78 to the nearest 10 **M1**

2460 (pounds) cao **A1**

Answer: £2460

Question 38

divide by 1000 or shift decimal 3 places left oe **M1**

4.075 cao **A1**

Answer: 4.075

Question 39

multiply metres by 100 to get centimetres oe **M1**

67.8 cm cao **A1**

Answer: 67.8 cm

Question 40

divide by 1000 or shift decimal 3 places left oe **M1**

45.6 cao **A1**

Answer: 45.6

© Revision Library | revisionlibrary.co.uk

Question 41

divide by 1000 or shift decimal 3 places left oe **M1**

3.45 cao **A1**

Answer: 3.45

Question 42

multiply by 1000 or shift decimal point 3 places to the right oe **M1**

6789 cao **A1**

Answer: 6789

Question 43

divide 60 by 0.6, or recognise the digits shift two columns left oe **M1**

100 cao **A1**

Answer: 100

Question 44

divide 5300 by 5.3, or recognise the digits shift three columns right oe **M1**

1000 cao **A1**

Answer: 1000

Question 45

multiply litres by 1000 to get millilitres oe **M1**

750 ml cao **A1**

Answer: 750 ml

Question 46

correct explanation that Priya has divided by 1000 (shifted the digits three columns) instead of dividing by 100 (two columns) oe **B1**

8.3 cao **B1**

Answer: Priya is wrong; the correct answer is 8.3. She has moved the digits three columns right (as if dividing by 1000) instead of two columns (dividing by 100).

Question 47

(a) 28 cao **B1**

(a) Answer: 28

(b) 2.8 cao, ft from a correct answer to part (a) **B1**

(b) Answer: 2.8

Question 48

multiply by 10000 or shift decimal point 4 places to the right oe **M1**

5260 cao **A1**

Answer: 5260

Question 49

z is in the interval $3.815 \leq z < 3.825$ (rounding to 2 dp) oe **M1**

multiply the interval by 100 to find x (since $x = 100z$) oe **M1**

$381.5 \leq x < 382.5$ cao **A1**

Answer: $381.5 \leq x < 382.5$

© Revision Library | revisionlibrary.co.uk