1.4 Place Value, Ordering and Rounding: 1-hour Pack

Calculators not allowed · about 60 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

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

(a) 0.45, 45/100, 0.5, 0.405 **(2)**

2 Round 798.6647 to 1 significant figure.

(2)

3 In the number 649.327, what is the value of the digit 3?

(1)

4 Given that 21 x 44 = 924, work out 9.24 ÷ 0.44.

(2)

5 Round 2418434 to 2 significant figures.

(2)

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6 Work out 8.026 x 10.

(1)

7 In the number 862.149, what is the value of the digit 8?

(1)

8 Given that 25 x 23 = 575, work out 0.25 x 0.23.

(2)

9 Given that 30 x 34 = 1020, work out 102 ÷ 3.4.

(2)

10 Round 0.0030273 to 2 significant figures.

(2)

11 Write these numbers in order, smallest first.
-12, 2, -8, 3, 11, 10

(2)

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12 Given that 38 x 25 = 950, work out 95 ÷ 2.5.

(2)

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13 Write these numbers in order, smallest first.
8, 11, -3, 5, -9, -11

(2)

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14 Round 5006066 to 3 significant figures.

(2)

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15 Work out 22.66 ÷ 100.

(1)

---

16 Round each number to the nearest whole number.

(a) 6.3 **(1)**

(b) 11.6 **(1)**

(c) 0.49 **(1)**

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17 Given that 47 x 41 = 1927, work out 4.7 x 0.41.

(2)

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18 Round 2057302 to 1 significant figure.

(2)

---

19 Write these numbers in order, largest first.
6.2, 6.91, 6.6, 6.581, 6.15

(2)

---

20 Given that 37 x 16 = 592, work out 3.7 x 0.16.

(2)

---

21 Work out 8.21 x 1000.

(1)

---

22 Round 6988888 to 3 significant figures.

(2)

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23 Given that 38 x 13 = 494, work out 3.8 x 0.13.

(2)

---

24 Round 6.2751 to 2 decimal places.

(1)

---

25 A baker uses 3.65 kg of sugar per batch. Estimate the amount of sugar used for 8 batches by first rounding 3.65 to the nearest whole number.

(2)

---

26 State the value of the digit 4 in 4,802.

(1)

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Mark scheme · 1.4 Place Value, Ordering and Rounding: 1-hour Pack

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

Question 1

(a) convert to decimals or recognise equivalent values (0.405, 0.45, 0.5, 0.45=45/100) oe — **M1**

(a) correct ordered list: 0.405, then 0.45 and 45/100 (equal, so either order), then 0.5 cao — **A1**

(a) Answer: **0.405, 45/100, 0.45, 0.5**

Question 2

identifies the first significant figure and looks at the digit after the required place — **M1**

800 cao — **A1**

Answer: **800**

Question 3

0.3 cao — **B1**

Answer: **0.3**

Question 4

scales both numbers to whole numbers, eg 924 ÷ 44 = 21 seen — **M1**

21 cao — **A1**

Answer: **21**

Question 5

identifies the first significant figure and looks at the digit after the required place — **M1**

2400000 cao — **A1**

Answer: **2400000**

Question 6

80.26 cao — **B1**

Answer: **80.26**

Question 7

800 cao — **B1**

Answer: **800**

Question 8

uses 575 with the decimal places counted (2 + 2 = 4 in total) — **M1**

0.0575 cao — **A1**

Answer: **0.0575**

Question 9

scales both numbers to whole numbers, eg 1020 ÷ 34 = 30 seen — **M1**

30 cao — **A1**

Answer: **30**

Question 10

identifies the first significant figure and looks at the digit after the required place — **M1**

0.0030 cao — **A1**

Answer: **0.0030**

Question 11

at least four numbers in the correct relative order — **M1**

-12, -8, 2, 3, 10, 11 cao — **A1**

Answer: **-12, -8, 2, 3, 10, 11**

Question 12

scales both numbers to whole numbers, eg 950 ÷ 25 = 38 seen — **M1**

38 cao — **A1**

Answer: **38**

Question 13

at least four numbers in the correct relative order — **M1**

-11, -9, -3, 5, 8, 11 cao — **A1**

Answer: **-11, -9, -3, 5, 8, 11**

Question 14

identifies the first significant figure and looks at the digit after the required place — **M1**

5010000 cao — **A1**

Answer: **5010000**

Question 15

0.2266 cao — **B1**

Answer: **0.2266**

Question 16

(a) 6 cao — **B1**

(a) Answer: **6**

(b) 12 cao — **B1**

(b) Answer: **12**

(c) 0 cao — **B1**

(c) Answer: **0**

Question 17

uses 1927 with the decimal places counted (1 + 2 = 3 in total) — **M1**

1.927 cao — **A1**

Answer: **1.927**

Question 18

identifies the first significant figure and looks at the digit after the required place — **M1**

2000000 cao — **A1**

Answer: **2000000**

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Question 19

at least three numbers in the correct relative order or all compared to the same number of decimal places	M1
6.91, 6.6, 6.581, 6.2, 6.15 cao	A1

Answer: **6.91, 6.6, 6.581, 6.2, 6.15**

Question 20

uses 592 with the decimal places counted (1 + 2 = 3 in total)	M1
0.592 cao	A1

Answer: **0.592**

Question 21

8210 cao	B1

Answer: **8210**

Question 22

identifies the first significant figure and looks at the digit after the required place	M1
6990000 cao	A1

Answer: **6990000**

Question 23

uses 494 with the decimal places counted (1 + 2 = 3 in total)	M1
0.494 cao	A1

Answer: **0.494**

Question 24

6.28 cao	B1

Answer: **6.28**

Question 25

rounds 3.65 to the nearest whole number, 4, shown	M1
32 (kg) cao	A1

Answer: **32 kg**

Question 26

4 thousand or 4000 cao	B1

Answer: **4000**

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