FOUNDATION

1.6 Place Value: Test Pack

EDEXCEL 1MA1 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 The number 306,754 is used in a survey of website visitors.

(a) Write down the value of the digit 7 in the number 306,754. **(1)**

.....

(b) Write down the value of the digit 3 in the number 306,754. **(1)**

.....

(Total for Question 1 is 2 marks)

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2 Insert the correct symbol, < , > or = , between each pair of numbers.

(a) 0.62 ___ 0.6 **(1)**

(b) -8 ___ -2 **(1)**

(c) 3.09 ___ 3.9 **(1)**

(Total for Question 2 is 3 marks)

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3 Poppy says that -5 is greater than -2 because 5 is greater than 2.
Explain why Poppy is wrong.

.....

.....

.....

.....

(Total for Question 3 is 1 mark)

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4 Using the fact that 17 x 12 = 204, work out 170 x 120.

(Total for Question 4 is 2 marks)

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5 Write down the value of the digit 3 in the number 8,370,125.

(Total for Question 5 is 1 mark)

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6 Write down the value of the digit 9 in the number 8,976,327.

(Total for Question 6 is 1 mark)

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7 Here are four digit cards: 2, 3, 7, 8. 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 7 is 3 marks)

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8 Write these numbers in order of size, starting with the smallest: 7.264, 5.55, 1.74, 1.64

(Total for Question 8 is 2 marks)

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9 Round 8.47 to 1 decimal place.

(Total for Question 9 is 1 mark)

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10 Circle the number that rounds to 500 when rounded to the nearest 100.

- ☐ A) 449
- ☐ B) 452
- ☐ C) 561
- ☐ D) 348

(Total for Question 10 is 1 mark)

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11 The length of a fun run at a village fete was 4,382 metres.

(a) Round 4,382 to the nearest 10. **(1)**

(b) Round 4,382 to the nearest 1000. **(1)**

(Total for Question 11 is 2 marks)

---

12 Work out 6 thousands + 3 hundreds + 8 ones.

(Total for Question 12 is 1 mark)

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13 A charity raised money from three collections: £245.60, £189.95 and £310.05.

(a) Round each amount to the nearest £10. **(3)**

(b) Use your answers to part (a) to estimate the total amount raised. **(1)**

(Total for Question 13 is 4 marks)

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14 Amir says that rounding 6,482 to the nearest 1000 gives the same answer as rounding 6,482 to 1 significant figure.
Show that Amir is correct.

(Total for Question 14 is 2 marks)

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15 Nadia has £50 to spend at a farm shop. She wants to buy three items costing £12.85, £9.40 and £18.30.
By rounding each price to the nearest pound, estimate whether Nadia has enough money, and if so, roughly how much change she would get.

(Total for Question 15 is 3 marks)

---

16 Round 3.276 to 2 decimal places.

(Total for Question 16 is 1 mark)

---

17 A whole number, when rounded to the nearest 1000, is 8000.

(a) Write down the smallest possible value of the number. **(1)**

.....

(b) Write down the largest possible value of the number. **(1)**

.....

(Total for Question 17 is 2 marks)

---

18 Write 4.006 as a number of thousandths.

(Total for Question 18 is 2 marks)

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19 A delivery lorry is carrying a load with a mass of 2.6 tonnes.
Work out the mass of the load in kilograms.

(Total for Question 19 is 2 marks)

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20 The table shows the length of three fun-run routes, given in kilometres:
Riverside 2.4 km Woodland 0.65 km Hilltop 3.208 km
Complete the table by writing each length in metres.

(a) Riverside: 2.4 km in metres. **(1)**

.....

(b) Woodland: 0.65 km in metres. **(1)**

.....

(c) Hilltop: 3.208 km in metres. **(1)**

.....

(Total for Question 20 is 3 marks)

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21 A number x rounds to 3.7 when rounded to 1 decimal place. Give the possible range of x.

(Total for Question 21 is 2 marks)

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22 A number x is multiplied by 100 to give y. The value y, rounded to 2 decimal places, is 45.67.
Work out the possible range of x.

(Total for Question 22 is 3 marks)

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Mark scheme · 1.6 Place Value: Test Pack

Question 1

(a) 700 oe (seven hundred) **B1**

(a) Answer: 700

(b) 300000 oe (three hundred thousand) **B1**

(b) Answer: 300,000

Question 2

(a) > cao **B1**

(a) Answer: >

(b) < cao **B1**

(b) Answer: <

(c) < cao **B1**

(c) Answer: <

Question 3

correct explanation showing -5 is to the left of -2 on a number line, so -5 < -2 (or -2 > -5) oe **B1**

Answer: Poppy is wrong because -5 < -2 (-2 is warmer/larger); on a number line -5 is further left than -2, so it is smaller, not greater.

Question 4

204 with the decimal point adjusted **M1**

20400 cao **A1**

Answer: 20400

Question 5

300,000 cao **B1**

Answer: 300000

Question 6

900,000 cao **B1**

Answer: 900000

Question 7

8732 seen **B1**

2378 seen **B1**

6354 cao **B1**

Answer: 6354

Question 8

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

1.64, 1.74, 5.55, 7.264 cao **A1**

Answer: 1.64, 1.74, 5.55, 7.264

Question 9

8.5 cao **B1**

Answer: 8.5

Question 10

B (452) cao **B1**

Answer: B) 452

Question 11

(a) 4380 cao **B1**

(a) Answer: 4380

(b) 4000 cao **B1**

(b) Answer: 4000

Question 12

6308 cao **B1**

Answer: 6308

Question 13

(a) 245.60 rounds to 250 cao **B1**

(a) 189.95 rounds to 190 cao **B1**

(a) 310.05 rounds to 310 cao **B1**

(a) Answer: £250, £190, £310

(b) 750 (pounds), ft correct sum of the three rounded values from part (a) **B1**

(b) Answer: £750

Question 14

rounds 6482 to the nearest 1000 to get 6000 oe **M1**

rounds 6482 to 1 significant figure to get 6000 and concludes the two methods agree cso **C1**

Answer: Both methods give 6000, so Amir is correct.

Question 15

rounds each price correctly to the nearest pound: 13, 9, 18 oe **M1**

dep adds the three rounded prices and subtracts the total from 50 **M1**

yes, enough money, roughly 10 (pounds) change cao, ft from correctly rounded values **A1**

Answer: Yes; an estimated total of £40 leaves about £10 change.

Question 16

3.28 cao **B1**

Answer: 3.28

Question 17

(a) 7500 cao **B1**

(a) Answer: 7500

(b) 8499 cao **B1**

(b) Answer: 8499

Question 18

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

4006 thousandths cao **A1**

Answer: 4006 thousandths

Question 19

multiply tonnes by 1000 to get kilograms oe **M1**

2600 kg cao **A1**

Answer: 2600 kg

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Question 20

(a) 2400 (m) cao **B1**

(a) Answer: 2400 m

(b) 650 (m) cao **B1**

(b) Answer: 650 m

(c) 3208 (m) cao **B1**

(c) Answer: 3208 m

Question 21

identify lower and upper round boundaries 3.65 and 3.75 oe **M1**

$3.65 \leq x < 3.75$ cao **A1**

Answer: $3.65 \leq x < 3.75$

Question 22

y is in the interval $45.665 \leq y < 45.675$ (rounding to 2 dp) oe **M1**

divide the interval by 100 to find x oe **M1**

$0.45665 \leq x < 0.45675$ cao **A1**

Answer: $0.45665 \leq x < 0.45675$

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