1.7 Rounding: 1-hour Pack

EDEXCEL 1MA1 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Round 0.00728 to 2 significant figures.

(Total for Question 1 is 1 mark)

2 Round 62,144 to the nearest 100.

(Total for Question 2 is 1 mark)

3 Round 708.623 to 2 significant figures.

(Total for Question 3 is 2 marks)

4 Pens cost £5.75 each. Ali has £77. What is the greatest number of pens Ali can buy? You must show your working.

(Total for Question 4 is 3 marks)

5 Round 55,478 to the nearest 10.

(Total for Question 5 is 1 mark)

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6 Pens cost £6.32 each. Ali has £23. What is the greatest number of pens Ali can buy? You must show your working.

(Total for Question 6 is 3 marks)

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7 Round 27,489 to the nearest 1000.

(Total for Question 7 is 1 mark)

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8 A machine measures a length as 549.746 metres. Write this length (a) correct to 2 decimal places, (b) correct to 2 significant figures.

(Total for Question 8 is 2 marks)

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9 Round 286.127 to 2 significant figures.

(Total for Question 9 is 2 marks)

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10 Work out 1.17 + 1.99. Give your answer to the nearest whole number.

(Total for Question 10 is 2 marks)

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11 Pens cost £4.26 each. Ali has £58. What is the greatest number of pens Ali can buy? You must show your working.

(Total for Question 11 is 3 marks)

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12 Round 5,627 to the nearest 1000.

(Total for Question 12 is 1 mark)

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13 Work out 3.33 + 4.13. Give your answer to the nearest whole number.

(Total for Question 13 is 2 marks)

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14 Pens cost £1.87 each. Ali has £32. What is the greatest number of pens Ali can buy? You must show your working.

(Total for Question 14 is 3 marks)

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15 Round 4017.56 to 3 significant figures.

(Total for Question 15 is 2 marks)

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16 A machine measures a length as 22.7771 metres. Write this length (a) correct to 1 decimal place, (b) correct to 1 significant figure.

(Total for Question 16 is 2 marks)

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17 Round 6.8 to the nearest whole number.

(Total for Question 17 is 1 mark)

---

18 Round 82,940 to the nearest 1000.

(Total for Question 18 is 1 mark)

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19 Pens cost £12.20 each. Ali has £53. What is the greatest number of pens Ali can buy? You must show your working.

(Total for Question 19 is 3 marks)

---

20 A machine measures a length as 95.3952 metres. Write this length (a) correct to 2 decimal places, (b) correct to 3 significant figures.

(Total for Question 20 is 2 marks)

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21 Round 987.676 to 2 significant figures.

(Total for Question 21 is 2 marks)

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22 A laptop costs £489.99.
Round £489.99 to the nearest pound.

(Total for Question 22 is 1 mark)

---

23 Show that 0.004679 rounded to 2 significant figures is 0.0047.

(Total for Question 23 is 2 marks)

---

24 A charity fun run raises £3,460, to be shared equally between 7 local charities. Work out the exact amount each charity receives, then round your answer to the nearest penny to state the amount that will actually be paid to each charity.

(Total for Question 24 is 3 marks)

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Mark scheme · 1.7 Rounding: 1-hour Pack

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

Question 1

0.0073 cao **B1**

Answer: 0.0073

Question 2

62100 cao **B1**

Answer: 62100

Question 3

identifies the digit that decides rounding **M1**

710 cao **A1**

Answer: 710

Question 4

77 / 5.75 or 7700 / 575 **M1**

13.39 seen **A1**

13 (rounded down, with reason) **B1**

Answer: 13

Question 5

55480 cao **B1**

Answer: 55480

Question 6

23 / 6.32 or 2300 / 632 **M1**

3.64 seen **A1**

3 (rounded down, with reason) **B1**

Answer: 3

Question 7

27,000 cao **B1**

Answer: 27,000

Question 8

549.75 cao **B1**

550 cao **B1**

Answer: (a) 549.75, (b) 550

Question 9

identifies the digit that decides rounding **M1**

290 cao **A1**

Answer: 290

Question 10

3.16 seen **M1**

3 cao **A1**

Answer: 3

Question 11

58 / 4.26 or 5800 / 426 **M1**

13.62 seen **A1**

13 (rounded down, with reason) **B1**

Answer: 13

Question 12

6000 cao **B1**

Answer: 6000

Question 13

7.46 seen **M1**

7 cao **A1**

Answer: 7

Question 14

32 / 1.87 or 3200 / 187 **M1**

17.11 seen **A1**

17 (rounded down, with reason) **B1**

Answer: 17

Question 15

identifies the digit that decides rounding **M1**

4020 cao **A1**

Answer: 4020

Question 16

22.8 cao **B1**

20 cao **B1**

Answer: (a) 22.8, (b) 20

Question 17

7 cao **B1**

Answer: 7

Question 18

83000 cao **B1**

Answer: 83000

Question 19

53 / 12.20 or 5300 / 1220 **M1**

4.34 seen **A1**

4 (rounded down, with reason) **B1**

Answer: 4

Question 20

95.40 cao **B1**

95.4 cao **B1**

Answer: (a) 95.40, (b) 95.4

Question 21

identifies the digit that decides rounding **M1**

990 cao **A1**

Answer: 990

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Question 22

£490 cao **B1**

Answer: £490

Question 23

identify first three significant digits 4,6,7 and note the 3rd digit 7 causes rounding up oe **M1**

0.0047 cao **A1 cso**

Answer: 0.0047

Question 24

3,460 / 7 = 494.2857... shown (or equivalent method) **M1**

494.29 (pounds) to the nearest penny cao **A1**

notes that 7 x 494.29 = 3,460.03, which is 3p more than the £3,460 raised, so rounding to the nearest penny does not exactly reconcile with the total oe **B1**

Answer: £494.29 to the nearest penny; 7 x 494.29 = £3,460.03, which is 3p more than the £3,460 raised, so the shares do not exactly reconcile with the total once rounded.

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