

Max's Magnificent Decimal Market

Learning objective: To identify, represent, and order decimals with up to three decimal places and solve problems involving money.

Max the monkey is helping at the local produce stall. Use your knowledge of decimal place value to help Max calculate costs and compare prices. Remember to show your working out clearly.

Max has been tasked with organising the prices at the market. He knows that 1.25 is the same as 1.250, but he needs to ensure all his labels are accurate to three decimal places to keep the inventory precise.

Word bank: decimal · hundredths · thousandths · place value · equivalent · ascending · descending · digit

1. Max is selling organic honey for £4.50, £4.505, and £4.055. Arrange these prices in ascending order. Explain how the value of the digit in the hundredths column helps you decide which is smallest. (3 marks)

2. A punnet of strawberries costs £2.87. If Max writes this as a decimal to three decimal places, what is the value of the thousandths digit? Justify your answer by explaining what this represents in terms of a fraction. (3 marks)

3. If a kilogram of apples costs £1.649 and a kilogram of pears costs £1.650, which fruit is more expensive? Use a place value grid comparison to justify your reasoning. (2 marks)

4. Max has £10.00. He buys a bag of nuts for £3.455 and a loaf of bread for £2.895. How much change does he have remaining? Show your calculation. (3 marks)

5. Compare and contrast the value of the digit '5' in the following prices: £5.12, £0.512, and £0.052. Why does the position of the digit significantly alter the total cost? (3 marks)

Draw: Draw a market stall with three price tags showing values with three decimal places (e.g., £3.245). Show Max the monkey using a magnifying glass to inspect the smallest decimal place.



Extension challenge: What might happen if a shopkeeper rounded every price to the nearest whole pound instead of keeping them as precise decimals? Write a short paragraph arguing whether this would be fairer for the shopkeeper or the customer, using mathematical reasoning to support your opinion.