

Lesson 9 **NUMBER****Money and decimals: €1.20 and €1.02 are not the same**

CURRICULUM ALIGNMENT

NUM.PVT.4

investigate how decimals and percentages (and fractions) can be compared, ordered and expressed in related terms.

MEA.MON.4

solve and pose practical tasks to investigate and make informed judgements about transactions and financial plans.

INTERACTIVES **Coin Counter · challenge, display**

WHAT THIS LESSON TEACHES

We always write money with two digits after the point: the first digit is tens of cent, the second is single cent. Same digits in different places make different amounts, so €1.20 is not the same as €1.02.

→ €1.20 means 1 euro, 2 tens-of-cent and 0 single cent.

→ €1.02 means 1 euro, 0 tens-of-cent and 2 single cent.

MODEL THIS ON THE BOARD

WHY €1.20 AND €1.02 DIFFER

- 1 Read €1.20: the **2** sits in the tens-of-cent column and the **0** holds the single-cent column.
- 2 Read €1.02: the **0** sits in the tens-of-cent column and the **2** is only single cent.
- 3 120 cent minus 102 cent shows €1.20 buys **18** cent more than €1.02.

ANSWER KEY

a) €1.20: $1 \times €1 + 1 \times 20c = 2$ coins.

b) €1.02: $1 \times €1 + 1 \times 2c = 2$ coins.

c) €4.55: $2 \times €2 + 1 \times 50c + 1 \times 5c = 4$ coins.

d) €9.99: $4 \times €2 + 1 \times €1 + 1 \times 50c + 2 \times 20c + 1 \times 5c + 2 \times 2c = 11$ coins (a tidy way: $4 \times €2 + 1 \times €1 + 1 \times 50c + 2 \times 20c + 1 \times 5c + 2 \times 2c$).

Q1: €5.20

Q2: No

Q3: €3.06, €4.55

a) **Never** : The digits sit in different cent columns so they differ by 18 cent.

b) **Always** : The two places show tens of cent and single cent every time.

c) **Always** : The missing single-cent zero leaves the columns unclear.

d) **Never** : Leaving it off turns the amount into the unclear form €1.2.

EXTENSION SHEET · STRETCH ANSWERS

S1: €4.8 (write both as cent: 460 cent vs 480 cent)

S2: €1.6 (write both as cent: 160 cent vs 138 cent)

S3: €1.75 (write both as cent: 130 cent vs 175 cent)

S4: €8.40 (€8.04 = 804 cent; €8.40 = 840 cent)

S5: €3.80 (€3.80 = 380 cent; €3.08 = 308 cent)