

Lesson 6: Problem solving – pounds and pence

→ pages 44–46

1. a) £4.55

b) £5 and 37p

c) £5 + £4 = £9

$$55\text{p} + 37\text{p} = 92\text{p}$$

$$\text{£}9 \text{ and } 92\text{p} = \text{£}9.92$$

Max and Olivia have £9.92 in total.

2. £2.45 = £2 and 45p

£1.59 = £1 and 59p

$$\text{£}2.45 + \text{£}1.59 = \text{£}3 \text{ and } 104\text{p} = \text{£}3 + \text{£}1 + 4\text{p} = \text{£}4.04$$

Jamilla spends £4.04 in total.

3. a) £32.56

b) £5.67

4. £2.15

5. £3.65

6. £13.35 + £7.40 = £20.75

$$\text{£}25 - \text{£}20.75 = \text{£}4.25$$

The minimum number of coins Lexi will get in her change is 4 (£2 + £2 + 20p + 5p).

Reflect

Methods may vary.

$$\text{£}2.55 + 70\text{p} + \text{£}1.68 = \text{£}4.93$$

Richard spends £4.93 so he will get £0.07 or 7p change if he pays with a £5 note.

Lesson 7: Problem solving – multiplication and division

→ pages 47–49

1. $3 \times £1 = £3$ $3 \times 26\text{p} = 78\text{p}$

$£3$ and $78\text{p} = £3.78$

3 glasses of milk cost $£3.78$.

2. a)

$$\begin{array}{r} 48 \\ \times 7 \\ \hline 336 \end{array}$$

$48\text{p} \times 7 = 336\text{p}$

$336\text{p} = £3.36$

b)

$$\begin{array}{r} 92 \\ \times 5 \\ \hline 460 \end{array}$$

$5 \times 92 = 460\text{p}$

$460\text{p} = £4.60$

3. a) $£3.18 \times 6 = £19.08$

b) $5 \times £7.49 = £37.45$

4. a) $160\text{p} \div 4 = 40\text{p}$ $12\text{p} \div 4 = 3\text{p}$

$40\text{p} + 3\text{p} = 43\text{p}$

A scone costs 43p .

b) 1 ruler costs $£0.43$.

(This is the same calculation as a) but with the price written in pounds rather than pence.)

5. a) $£0.92$ b) $£1.38$

6. $\frac{1}{3}$ of $£9.72 = £3.24$

$\frac{2}{3} = 2 \times £3.24 = £6.48$

$\frac{2}{3}$ of $£9.72 = £6.48$

7. Assuming that burgers and buns can be bought individually:

3 burgers costs $£4.62$, so 12 cost $£4.62 \times 4 = £18.48$

1 bread bun costs $£1.20 \div 5 = £0.24$, so 12 cost $£0.24 \times 12 = £2.88$

$£18.48 + £2.88 = £21.36$

The total cost is $£21.36$.

Reflect

Answers will vary; the easiest way is to round one book up to $£8$ and find the approximate cost of 8.

$£8 \times 8 = £64$

The price of each book has been rounded up by 1p for each book, so this cost is $1\text{p} \times 8 = 8\text{p}$ over.

$£64.00 - £0.08 = £63.92$

Lesson 8: Solving two-step problems

→ pages 50–52

- a) $4 \times 17\text{p} = 68\text{p}$ $4 \times 23\text{p} = 92\text{p}$
 $68\text{p} + 92\text{p} = 160\text{p} = \text{£}1.60$
The total cost is $\text{£}1.60$.

b) $23\text{p} + 17\text{p} = 40\text{p}$
 $4 \times 40\text{p} = 160\text{p} = \text{£}1.60$
The total cost is $\text{£}1.60$.

c) The method used in part b) is more efficient. This is because when you add the price of one lemon and one pepper the answer is a multiple of 10 so it is easy to multiply.
- $3 \times 80\text{p} = \text{£}2.40$
 $\text{£}2.40 + 0.45 = \text{£}2.85$
Tom spends $\text{£}2.85$.
- Yes. Explanations may vary; for example:
Each pen costs less than 50p. The ruler and the paperclip each cost less than 40p. So, the items altogether will cost less than $50\text{p} + 50\text{p} + 40\text{p} + 40\text{p}$, which is $\text{£}1.80$.
Others answers could involve adding exact amounts:
 $0.35 + 0.96 + 0.32 = \text{£}1.63$
- Carrots = 32p each onions = 18p each
 $32\text{p} + 18\text{p} = 50\text{p}$
The total cost of buying a carrot and an onion is 50p.
- The football costs $\text{£}7$. (The toy train costs $\text{£}11$.)

Reflect

Answers will vary depending on children's previous experience and levels of confidence.

Lesson 9: Problem solving – money

→ pages 53–55

- $5 \times 84\text{p} = 420\text{p} = \text{£}4.20$
Andy gets $\text{£}0.80$ change.
- a) If the bars of chocolate cost $\text{£}1$ each he would pay $\text{£}8$ for 8 bars and get $\text{£}2$ change. Since Max received more than $\text{£}2$ change the bars of chocolate must cost less than $\text{£}1$ each.
b) $\text{£}10 = 1,000\text{p}$, $\text{£}3.52 = 352\text{p}$
 $1,000\text{p} - 352\text{p} = 648\text{p}$
 $648\text{p} \div 8 = 81\text{p}$
A bar of chocolate costs $\text{£}0.81$.
- It is cheaper to pay for 6 throws at $\text{£}1.20$ because this costs 20p for each throw compared with 25p a throw when paid for individually.
- Power Cabs: $\text{£}3 + (8 \times \text{£}0.40) = \text{£}3 + \text{£}3.20 = \text{£}6.40$
A1 Cars: $9 \times \text{£}0.70 = \text{£}6.30$
The least expensive taxi company for Sofia is A1 Cars.
- $\text{£}2.67 + \text{£}5.75 = \text{£}8.42$
- No, Amelia is not correct.
Buying individual buns is $4 \times \text{£}0.60 = \text{£}2.40$, but you get 1 free so the cost is $\text{£}2.40$ for 5, compared with the pack of 5 at $\text{£}2.50$.

Reflect

Answers will vary. 4 bread rolls at 55p each = $4 \times \text{£}0.55 = \text{£}2.20$, so the price children suggests for 4 rolls must be less than $\text{£}2.20$.

