

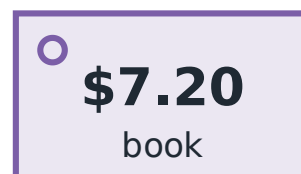
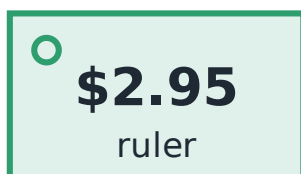
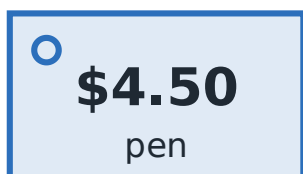
Extension & Challenge — Financial Mathematics

Part A — At the School Shop

Money problems use decimals to two places — the cents. Line up the decimal points when you add, and remember that change is what is left after subtracting the cost from the money handed over.

Worked example. Buy a ruler (\$2.95) and a pen (\$4.50). Total: $\$2.95 + \$4.50 = \$7.45$. Pay with \$10; change is $\$10.00 - \$7.45 = \$2.55$.

School shop prices



School-shop prices: pen \$4.50, ruler \$2.95, book \$7.20.

1 You buy one pen, one ruler and one book. What is the total cost?

Answer: _____

2 You pay for the three items in question 1 with a \$20 note. How much change should you get?

3 A teacher buys 5 pens and 5 rulers for the class. What is the total? Show a quick way to work it out.

4 Can you afford it? You have \$15. You want 2 books. Can you afford them? If not, how much short are you?

5 Best value. Pens are also sold in a pack of 3 for \$12. Is the pack cheaper than buying 3 single pens? By how much per pen?

6 Open challenge. You have exactly \$20 and must spend as close to all of it as possible (without going over) on these three items. List what you would buy and the total.

Part B — Discounts, Profit & Budgets

Financial maths is full of percentages: discounts reduce a price, profit is the difference between cost and selling price, and a budget checks that spending does not beat the money available.

To find 10% of an amount, divide by 10. Then 20% is double that, 5% is half, and 25% is a quarter of the whole.

Worked example. A \$40 game is 15% off. 10% of 40 is 4; 5% is 2; so 15% is \$6. Sale price: $40 - 6 = \$34$.

1 A jacket is \$80. In a sale it is 25% off. Find the saving and the sale price.

2 A market stall buys oranges for \$0.40 each and sells them for \$0.70 each. What is the profit on one orange? On 50 oranges?

3 Sam earns \$12 pocket money each week. He saves $\frac{1}{4}$ of it. How much does he save in 8 weeks?

4 Budget. You are given \$50 to plan a class party. Drinks cost \$18, snacks \$22, decorations \$7. Do you have enough? How much is left over or how much extra is needed?

5 Compare deals. Shop A offers "20% off \$50". Shop B offers "\$15 off \$50". Which is the better deal, and by how much?

6 Prove it. A shop raises a \$100 item by 10%, then later takes 10% off the new price. Is the final price back to \$100? Explain what happens.
