

Vending Machine Problems

TECHNOLOGY

Technological systems such as vending machines or household appliances are designed to follow the user's instructions. For example, once a vending machine is loaded with goods, people just need to put in their money and press some buttons.

Activity

Phil and Maria's school has a new vending machine, but all the price labels are missing.



Phil and Maria's teacher gives them four \$5 notes to make some purchases.

Here are their purchases and change from each \$5:

- 1 water and 1 fruit juice: 50 cents change
- 1 packet of corn chips and 1 muesli bar: \$1 change
- 2 packets of almonds: \$3 change
- 1 water and 1 packet of almonds: \$2 change.

1. a. What do Phil and Maria now know about the cost of the items?
b. Explain your reasoning.
2. How could they use another \$5 note to find the missing information?

Focus

Devising problem-solving strategies