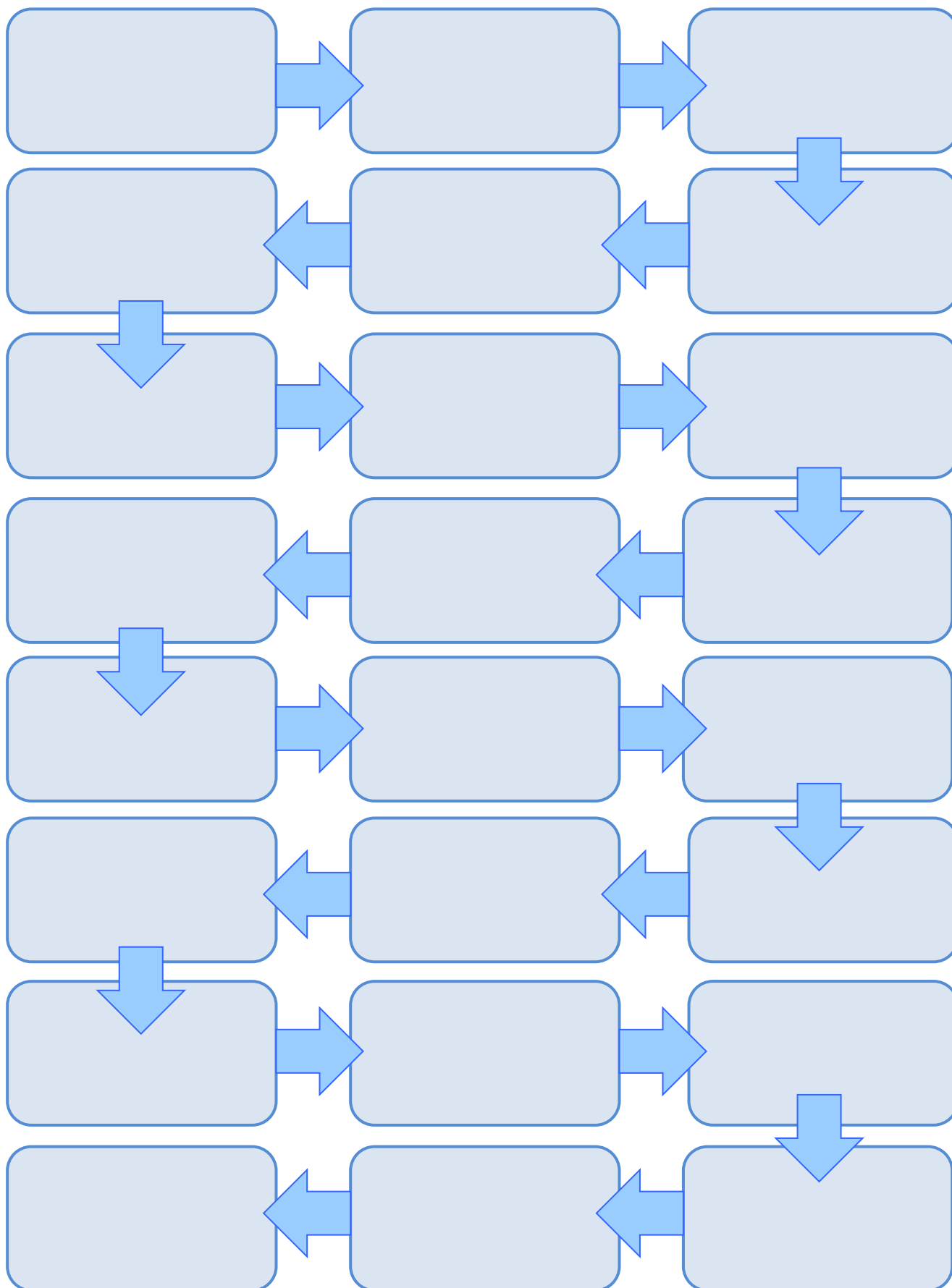



Simplify the algebraic expressions to find the next card in the sequence.

Use the grid below to record the correct sequence of letters.



$$2a + b$$



Simplify:
 $4a + b - 2a - 2b$

$$2a - b$$



Simplify:
 $7a + 3b - a$

$$2a + 2b$$



Simplify:
 $3a - 2b + a$

$$4a + 5b$$



Simplify:
 $4a + 4b - 8b$

$$5a + 4b$$



Simplify:
 $2a + b + a - 2b$

$$3a + 5b$$



Simplify:
 $5a + 2b - 5b$

$$8a + b$$



Simplify:
 $2a + 5b + 2a$

START

Simplify:
 $a + b + a + b$

$$6a + b$$

D

Simplify:
 $2a + 4b + 3a$

$$5a - 3b$$

R

Simplify:
 $3a + b - a$

$$4a - 4b$$

W

Simplify:
 $2a + a + 3b + 2b$

$$4a - 2b$$

R

Simplify:
 $6a + 2b - b$

$$8a - 4b$$

K

Simplify:
 $9a + b - a$

$$3a - b$$

O

Simplify:
 $a + a + 2b + 4b$

$$6a + 3b$$

T

Simplify:
 $a + 2a + b + a$

$$3a - 2b$$

O

Simplify:
 $-4a + 3b + a - 2b$

$$3a + 4b$$

E

Simplify:
 $5a + 5b + 4a$

$$3a + 3b$$

T**END**

$$2a + 6b$$

R

Simplify:
 $4a + 3a - 4b + a$

$$4a + b$$

H

Simplify:
 $2a + 4b + a$

$$5a + b$$

F

Simplify:
 $4a + 2b - 3a$

$$-3a + b$$

R

Simplify:
 $2a + b + a + 2b$

$$a + 2b$$

F

Simplify:
 $2a - b + a - b$

$$9a + 5b$$

E

Simplify:
 $5a + 3b - 2b$

Teaching notes

This activity gives practice collecting like terms to simplify linear algebra. The secret message element means that the answers can quickly be checked by the students themselves.

The activity is designed to be completed in pairs or small groups and can be used in two ways:

Give each group a set of the cards (24 in total). The students arrange them into a sequence to find the hidden message. The cards are not given in order so the students can cut them out themselves.

or

Print the cards onto A3 paper, cut out and stick around the room. Give each group a copy of the answer grid and send to a starting card (Stagger the start times to avoid groups simply following each other). Pupils solve the given problem and move around the room to find the next card in the sequence.

Answer

HARD WORK IS WORTH THE EFFORT