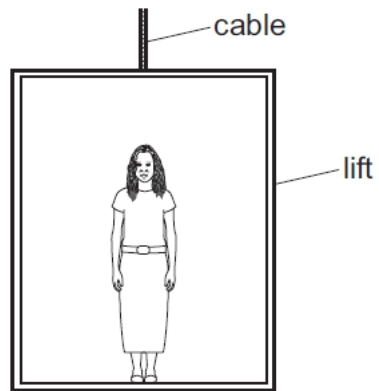
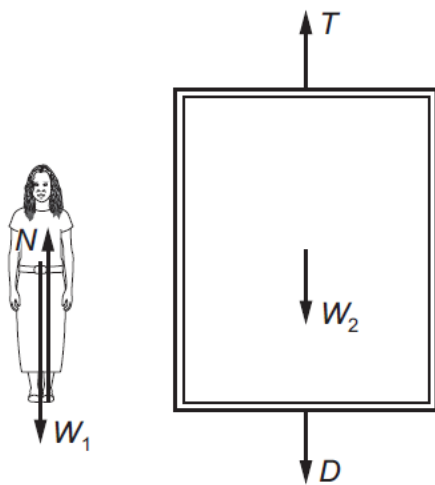


- 5 The diagram shows a woman standing in a lift.



The forces acting on the woman and the forces acting on the lift are shown.



$N$  is the force from the lift floor on the woman.

$W_1$  is the weight of the woman.

$T$  is the tension in the lift cable.

$W_2$  is the weight of the lift.

$D$  is the force from the woman on the lift floor.

Which statement is correct?

- A  $N$  and  $W_1$  are always equal and opposite.
- B  $(W_1 + W_2)$  is always equal to  $T$ .
- C If  $N = W_1$ , the lift must be at rest.
- D If  $T = (D + W_2)$ , the lift must have a constant velocity.