

Solutions

Each answer shows the steps, then the **result**.

2.1

- 50 N in the opposite direction, acting on the hammer

2.2

- the gravitational pull of the person **on the Earth**, equal in size and directed upward on the Earth

2.3

- the two forces act on **different** objects; forces can cancel only when they act on the **same** object

3.1 A

3.2 B

3.3

(a)

- the gravitational pull of the book on the Earth (upward, on the Earth)

(b)

- the force of the book pushing down on the table

(c)

- they act on the **same** object (the book) and are different types of force (gravity and contact); a third-law pair must act on two **different** objects