Solutions

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

2.1

- weight, acting downward; and the normal force from the table, acting upward

2.2

(a)

- long-range

(b)

- contact

(c)

- contact

(d)

- long-range

2.3

- $25 - 9.0 = 16$ N to the right

2.4

- 15 N (equal to the weight, since it is in equilibrium)

3.1 C

3.2 D

3.3

(a)

- weight mg downward; two tension forces T upward

(b)

- $2T = mg = 20$ N, so $T = 10$ N