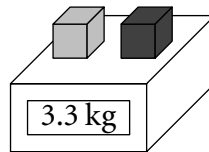
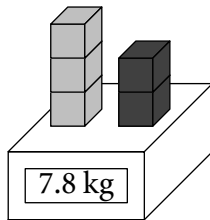


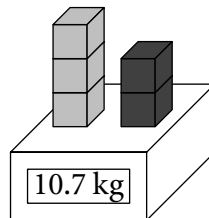
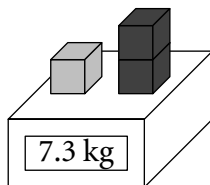
# Simultaneous Equations

- 1 Work out the masses of the light and dark boxes in each of the following cases. Explain briefly how you got your answers.

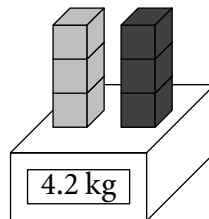
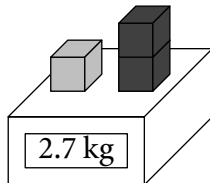
(a)



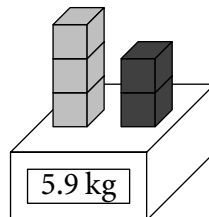
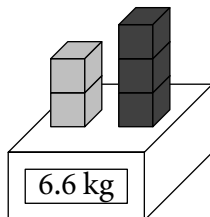
(b)



(c)



(d)



2 Solve the following pairs of simultaneous equations. Show all your working.

(a)  $2x + y = 3.9$   
 $x + y = 2.5$

(b)  $x + 3y = 12.7$   
 $x + y = 7.1$

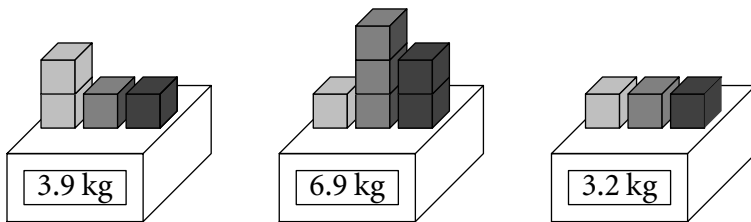
(c)  $x + 2y = 6.3$   
 $2x + y = 3.9$

(d)  $x + 3y = 11.9$   
 $3x + y = 10.1$

(e)  $2x + 3y = 14.7$   
 $3x + 2y = 18.3$

3 I have twenty sweets. Some of these are gobstoppers and the rest are mints. Gobstoppers are 11p each, and mints are 7p each. If the sweets cost me £1.88 in total, how many gobstoppers and how many mints do I have?

4 Work out the masses of the light, medium, and dark boxes in the following example. Explain how you got your answer.



5 Can you make up more puzzles like this? Can you solve them?