

# Solutionbank M1

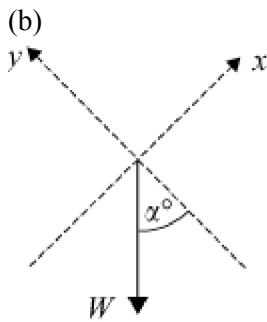
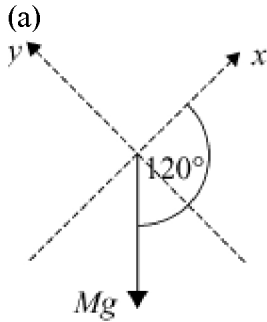
Heinemann Modular Maths for Edexcel AS and A-level

## 4 Forces

### Exercise D, Question 4

#### Question:

Find the components of the following forces in the directions of the  $x$ -axis and  $y$ -axis.



#### Solution:

(a) in  $x$ -direction  $-Mg \cos 60^\circ = -0.5Mg$   
 in  $y$ -direction  $-Mg \sin 60^\circ = -0.866Mg$  (3 s.f.)

(b) in  $x$ -direction  $-W \sin \alpha$   
 in  $y$ -direction  $-W \cos \alpha$

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