

# Interactive Example Candidate Responses

Paper 3 (May / June 2016), Question 2

**Cambridge IGCSE™**  
**Physics 0625**



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- 2 A boy steps off a high board into a swimming pool.

Fig. 2.1 shows the forces acting on the boy at one point in his fall.

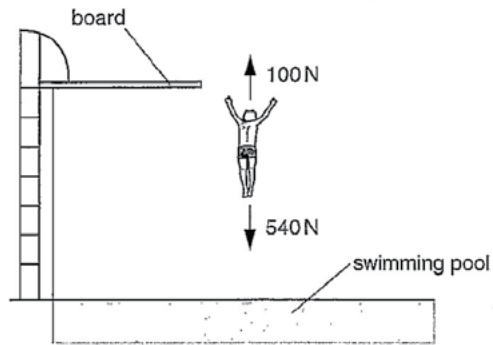


Fig. 2.1

- (a) The 540 N force is caused by gravitational attraction.

State the cause of the 100 N force.

air resistance [1]

- (b) Calculate the mass of the boy.

$m =$

$$540 \div 10 = 54$$

mass of boy = 54 kg [2]

- (c) Calculate the resultant force on the boy. State its direction.

100 ÷ 10 ~~540 ÷ 100 = 5.4~~  
 100 → resultant force = 5.4 10 N  
 direction = Downwards [2]

[Total: 5]

Select page

Your Mark

2(a)

2(b)

2(c)

Q2	Mark scheme
(a)	air resistance
(b)	$W = m \times g$ in any form 54 (kg)
(c)	$(540 - 100) = 440$ (N) B1 downwards

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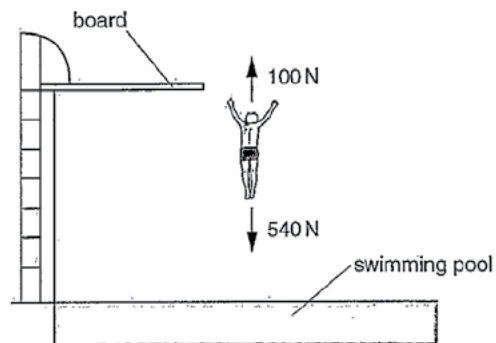


Fig. 2.1

- (a) The 540 N force is caused by gravitational attraction.

State the cause of the 100 N force.

Energy force [1]

- (b) Calculate the mass of the boy.

$$540 - 100$$

$$\frac{440}{10}$$

mass of boy = 44 kg [2]

- (c) Calculate the resultant force on the boy. State its direction.

resultant force = 640 N

direction = Down [2]

[Total: 5]

Select  
page

Your  
Mark

2(a)

2(b)

2(c)

Q2 Mark scheme

(a)	air resistance
(b)	$W = m \times g$ in any form 54 (kg)
(c)	$(540 - 100) = 440$ (N) B1 downwards

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