Cambridge Assessment International Education

Interactive

Interactive Example Candidate Responses

Paper 3 (May / June 2016), Question 5

Cambridge IGCSE™
Physics 0625

Version 2.0

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MIDDLE LOW

5 Fig. 5.1 shows two men repairing a weak roof using a crawler-board.

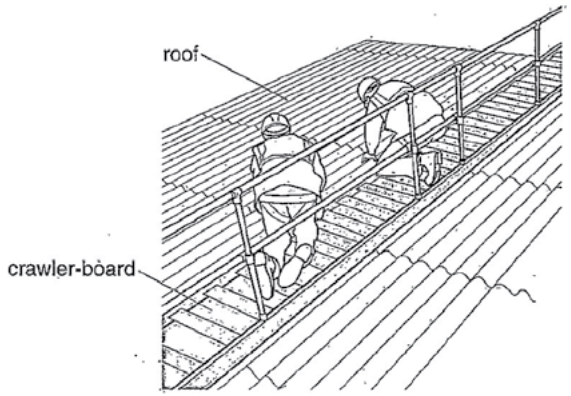

Fig. 5.1

(a) Explain why use of the crawler-board prevents the men from falling through the roof.

~~The~~ ~~they have support by~~
It has a large surface area
which will prevent ~~from~~ the roof to
collapse when pressure is added. [2]

(b) The crawler-board has a weight of 400 N. The total weight of the two men is 1600 N. The area of the crawler-board in contact with the roof is 0.8 m^2.

Calculate the pressure on the roof when the men are on the crawler-board. Include the unit.

1600 − 400 = 1200
1200 ÷ 0.8

pressure = 960 N/m^2 [5]

[Total: 7]

Your Mark

5(a) ☐

5(b) ☐

Q5	Mark scheme
(a)	any two from: larger area (in contact with roof) weight OR force spread out lower pressure (on roof)
(b)	400 + 1600 seen OR 2000 (N) P = F/A stated 2000/0.8 2500 N/m^2 OR Pa

EXAMINER COMMENTS

MARK SCHEME

5 Fig. 5.1 shows two men repairing a weak roof using a crawler-board.

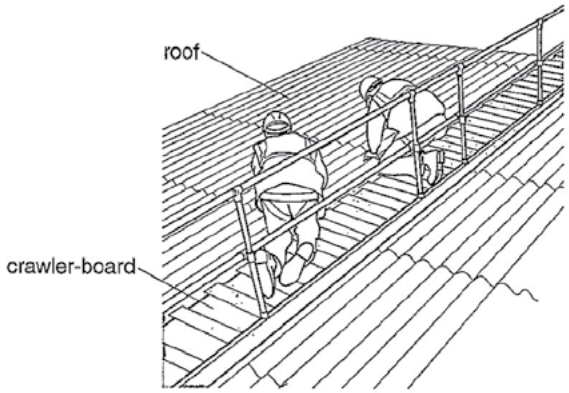

Fig. 5.1

(a) Explain why use of the crawler-board prevents the men from falling through the roof.

To reduce friction because that helps him to balance while walking and not slippery. and also to be able to walk properly. [2]

(b) The crawler-board has a weight of 400 N. The total weight of the two men is 1600 N. The area of the crawler-board in contact with the roof is 0.8 m^2.

Calculate the pressure on the roof when the men are on the crawler-board. Include the unit.

$\frac{400}{1600} \times 0.64$

pressure = 0.16 [5]

[Total: 7]

Select page

MIDDLE LOW

Your Mark

5(a)

5(b)

Q5	Mark scheme
(a)	any two from: larger area (in contact with roof) weight OR force spread out lower pressure (on roof)
(b)	400 + 1600 seen OR 2000 (N) P = F/A stated 2000/0.8 2500 N/m^2 OR Pa

EXAMINER COMMENTS

MARK SCHEME

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