

Author: HIAS Maths Team (Secondary)

Published: January 2021

Final version

# Variation using a Maths GCSE question

**Year 11 (Foudnation)**

# Overview

## **This document contains...**

A set of connected questions that link to a past GCSE question

## **Points to consider when using this resource**

Each variation of the exam question should be considered as part of a learning journey. Teachers may wish to consider models and images to support students to access the problems.

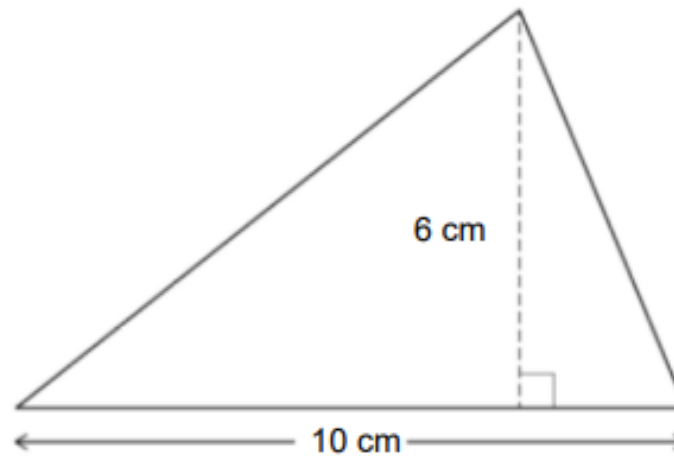
# **Year 11 F: variation: AQA 2019 P2 Q18**

## **Area of triangles and formula**

## Prior knowledge to review

- Multiplication strategies
- Knowledge of tables and associated facts
- Area of a triangle
- Substitution into formula
- Rearranging formula

A force of 180 newtons (N) is applied to the surface of this triangle.



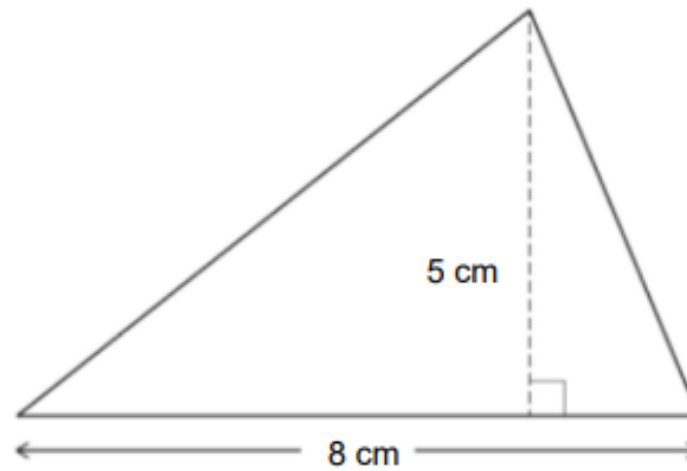
Not drawn  
accurately

Work out the pressure.

Use  $\text{pressure} = \frac{\text{force}}{\text{area}}$

[3 marks]

A force of 180 newtons (N) is applied to the surface of this triangle.



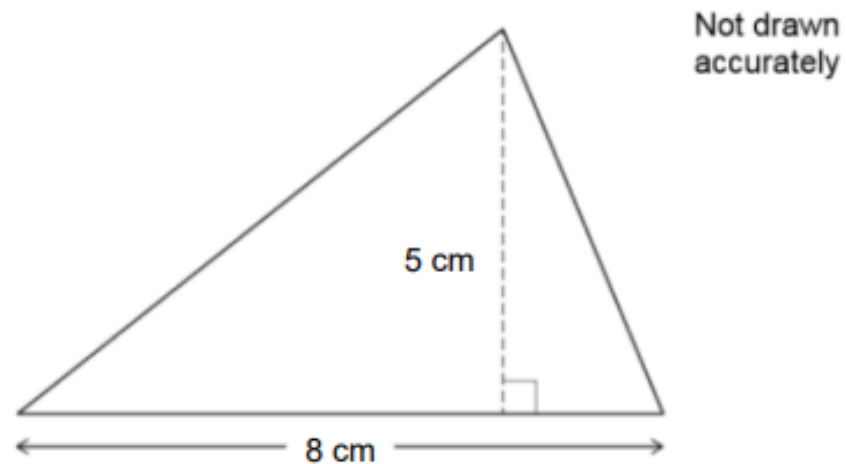
Not drawn accurately

Work out the pressure.

Use  $\text{pressure} = \frac{\text{force}}{\text{area}}$

[3 marks]

A force of 120 newtons (N) is applied to the surface of this triangle.



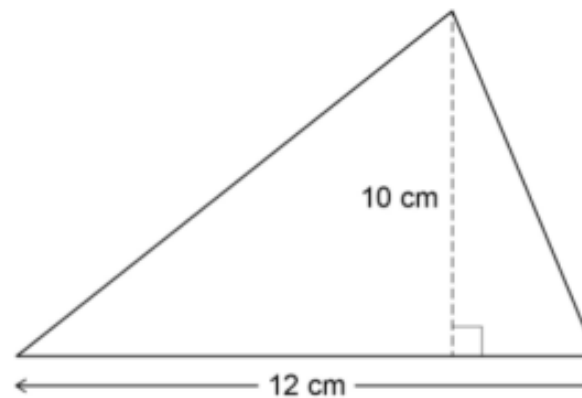
Work out the pressure.

Use  $\text{pressure} = \frac{\text{force}}{\text{area}}$

[3 marks]

Year 11 F: variation: AQA 2019 P2 Q18  
Equivalent fractions and area of rectangles

18 A force of 180 newtons (N) is applied to the surface of this triangle.



Not drawn accurately

Work out the pressure.

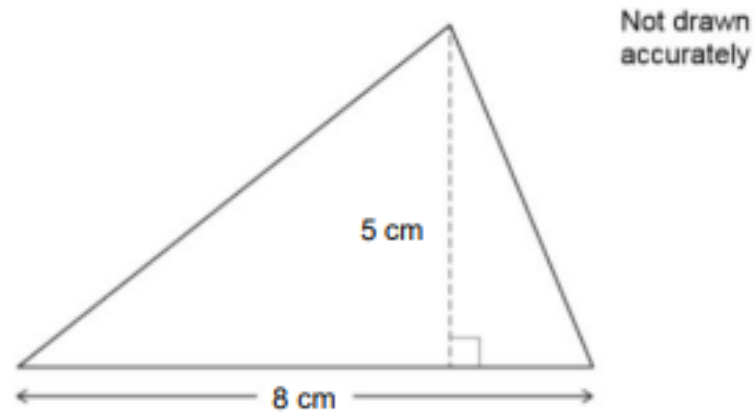
Use  $\text{pressure} = \frac{\text{force}}{\text{area}}$

[3 marks]



Work out the force in Newtons on this triangle if the pressure is 10 N/cm<sup>2</sup>

Use  $\text{pressure} = \frac{\text{force}}{\text{area}}$



## HIAS Maths Team

Jo Lees – Lead Inspector (Secondary)

Email: [jo.lees@hants.gov.uk](mailto:jo.lees@hants.gov.uk)

Kate Spencer – Lead Inspector (Primary)

Email: [kathryn.spencer@hants.gov.uk](mailto:kathryn.spencer@hants.gov.uk)

Rebecca Vickers – Teaching & Learning Adviser (Primary)

Email: [rebecca.vickers@hants.gov.uk](mailto:rebecca.vickers@hants.gov.uk)

Nikki Farrage – Teaching & Learning Advisor (Primary)

Email – [Nicola.Farrage@hants.gov.uk](mailto:Nicola.Farrage@hants.gov.uk)

Olivia Humphries – Teaching & Learning Advisor (Primary)

Email – [Olivia.humphries@hants.gov.uk](mailto:Olivia.humphries@hants.gov.uk)

For further details on the full range of services available please contact us using the following email:

[htlcdev@hants.gov.uk](mailto:htlcdev@hants.gov.uk)

# Upcoming Courses

Keep up-to-date with our learning opportunities for each subject through our Upcoming Course pages linked below. To browse the full catalogue of learning offers, visit our new Learning Zone. Full details of how to access the site to make a booking are provided [here](#).

- [English](#)
- [Maths](#)
- [Science](#)
- [Geography](#)
- [RE](#)
- [History](#)
- [Leadership](#)
- [Computing](#)
- [Art](#)
- [D&T](#)
- [Assessment](#)
- [Support Staff](#)
- [SEN](#)