**17** The diagram shows a solid prism *ABCDEFGH*.

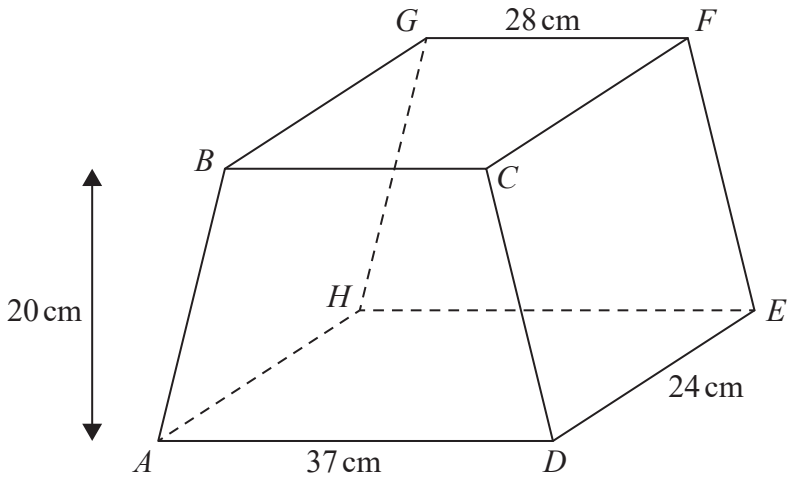



Diagram **NOT** accurately drawn

The trapezium *ABCD*, in which *AD* is parallel to *BC*, is a cross section of the prism.
The base *ADEH* of the prism is a horizontal plane.
*ADEH* and *BCFG* are rectangles.
The midpoint of *BC* is vertically above the midpoint of *AD* so that *BA* = *CD*.

*AD* = 37 cm  *GF* = 28 cm  *DE* = 24 cm

The perpendicular distance between edges *AD* and *BC* is 20 cm.

(a) Work out the total surface area of the prism.

..... cm²

**(4)**

DO NOT WRITE IN THIS AREA
DO NOT WRITE IN THIS AREA
DO NOT WRITE IN THIS AREA

(b) Calculate the size of the angle between $AF$ and the plane $ADEH$.
Give your answer correct to one decimal place.

.....°

**(3)**

**(Total for Question 17 is 7 marks)**

DO NOT WRITE IN THIS AREA
DO NOT WRITE IN THIS AREA
DO NOT WRITE IN THIS AREA