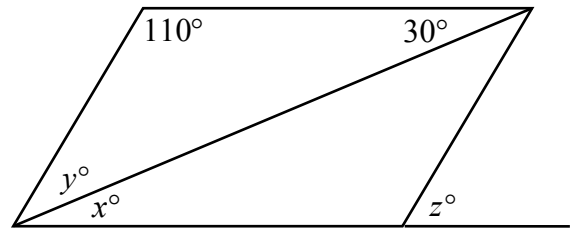


**Question 4**

**(25 marks)**

- (a) The diagram shows a parallelogram, with one side produced. Use the data on the diagram to find the value of  $x$ , of  $y$ , and of  $z$ .



Give a reason for your answer in each case.

$x =$  \_\_\_\_\_

Reason:

$y =$  \_\_\_\_\_

Reason:

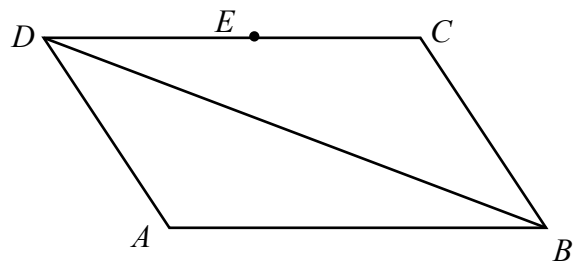
$z =$  \_\_\_\_\_

Reason:

- (b) The area of the parallelogram  $ABCD$  is  $480 \text{ m}^2$ .

(i) Find the area of the triangle  $ABD$ .

$|\triangle ABD| =$  \_\_\_\_\_



(ii)  $E$  is the midpoint of  $[CD]$ . Find the area of the triangle  $BCE$ .