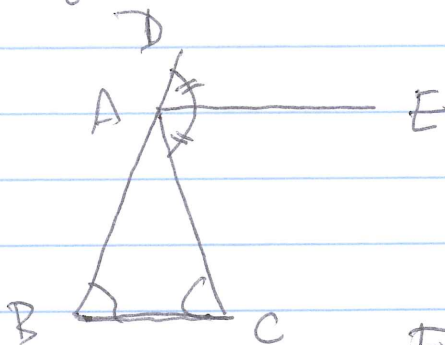


## Q UIZ 2B

Fill in the reasons for the steps in the following proof:

GIVEN



Isosceles  $\triangle ABC$   
with

$$|AB| = |AC|$$

$$\angle B = \angle C$$

$E \in$  Interior  $\angle DAC$

such that  $|\angle DAE| = \frac{1}{2} |\angle DAC|$ .

( $\Rightarrow E, C$  on same side  
of  $AB$ ).

TO PROVE  $AE \parallel BC$

1.  $2 |\angle ABC| = 180^\circ - |\angle BAC| = |\angle DAC| = 2 |\angle DAE|$ .

2.  $|\angle ABC| = |\angle DAE|$ .

3.  $\angle DAE$  and  $\angle ABC = \angle DBC$  are corresponding angles for the two lines  $AE$  &  $BC$  cut by the transversal  $AB = DB$ .

4. Therefore  $AE \parallel BC$ .