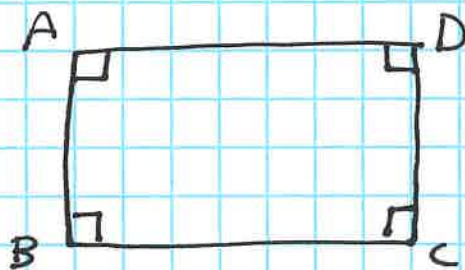


### 7.2.3 What else can be proved?

7-72



$$m\angle A + m\angle B = 180^\circ$$

this means that

$\overline{AD} \parallel \overline{BC}$  because of same side interior angles.

Similarly;  $m\angle A + m\angle D = 180^\circ$ , so

$\overline{AB} \parallel \overline{DC}$  for the same reason

7-73

a)  $x = 6$  SAS  $\cong$

b)  $x = 10$  ASA  $\cong$

c)  $x \approx 15.71$  HL  $\cong$

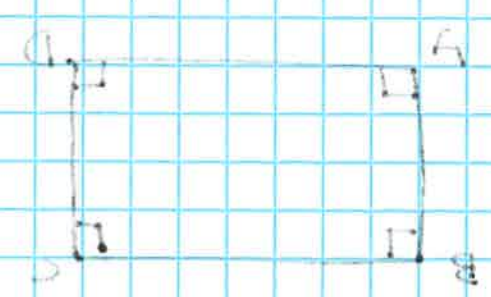
d) Cannot be determined  
triangles are similar  
AA  $\sim$

$$\tan 35 = \frac{11}{x}$$

$$x \approx 15.71$$

1.2.3 Which else can be proved?

[1-12]



$m\angle A + m\angle B = 180^\circ$

This means that

$AD \parallel BC$  because of same side interior angles.

Similarly  $m\angle A + m\angle D = 180^\circ$

$AB \parallel DC$  for the same reason.

[1-13]

1) Given as statement  
 Angles are equal  
 $\triangle H \sim \triangle I$

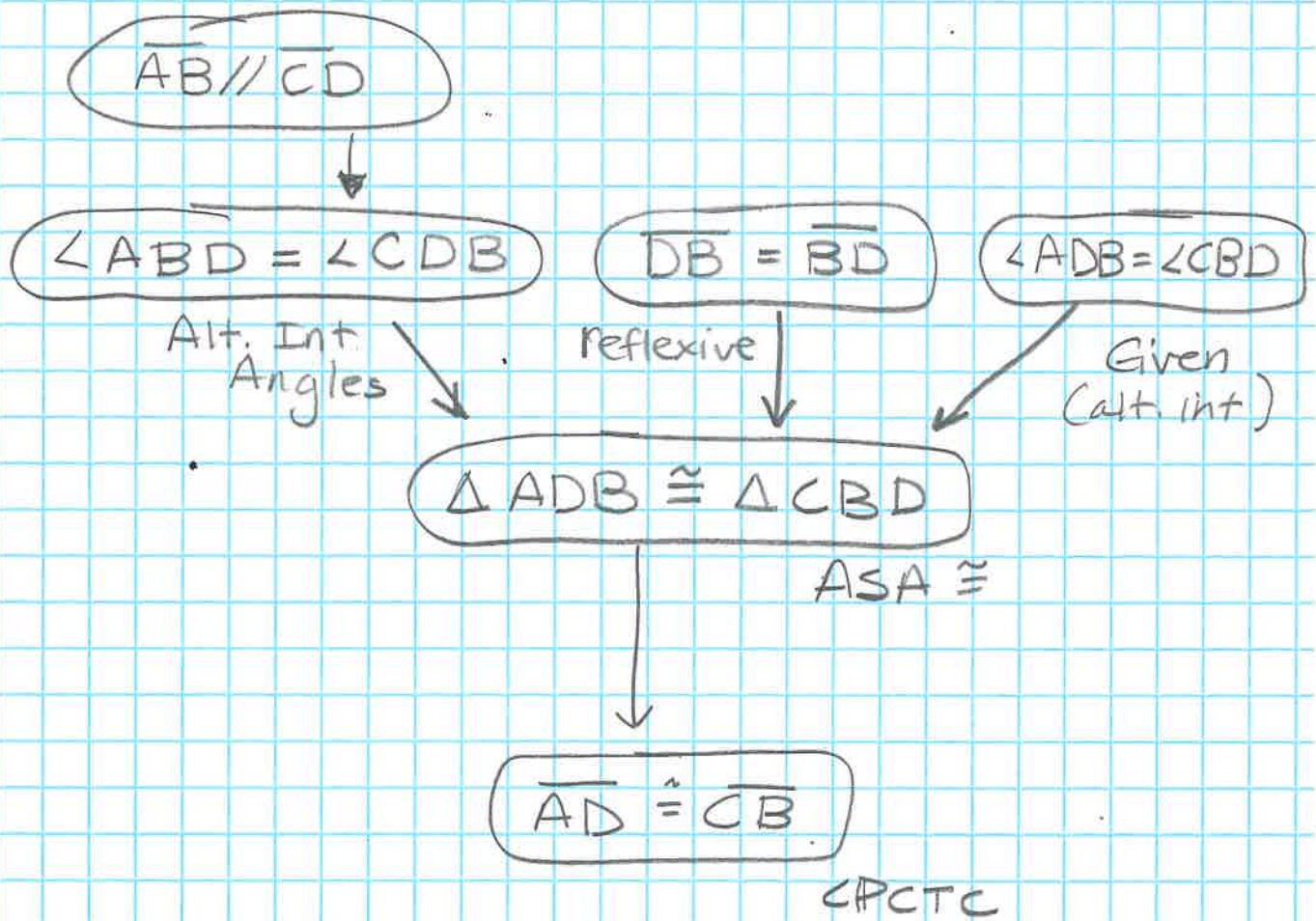
- a)  $x = 10$   $\triangle Z \cong \triangle A$
- b)  $x = 10$   $\triangle A \cong \triangle I$
- c)  $x = 10$   $\triangle H \cong \triangle I$
- d)  $x = 10$   $\triangle H \cong \triangle Z$





7-74

Given:  $\overline{AB} \parallel \overline{CD}$   
 $\angle ADB = \angle CBD$



Closure

Thm. Tool kit

add Rectangles

[1714]

Given:  $AB \parallel CD$   
 $\angle ADB = \angle CBD$

[Close]

! then  $\angle ADB = \angle CBD$   
and  $\angle ABD = \angle CDB$