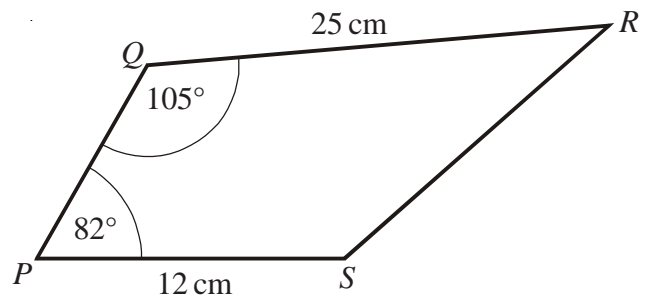
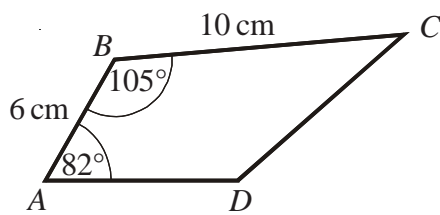


## Similar Shapes



1)

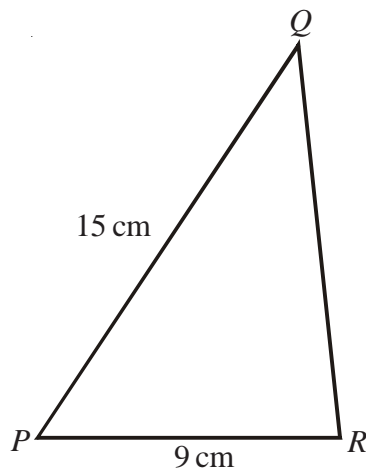
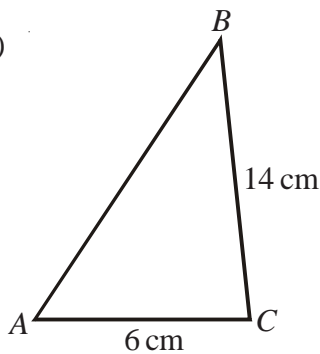


$ABCD$  and  $PQRS$  are mathematically similar.

- Find the length of  $PQ$ .
- Find the length of  $AD$ .



2)



Triangles  $ABC$  and  $PQR$  are mathematically similar.

Angle  $A$  = angle  $P$ .

Angle  $B$  = angle  $Q$ .

Angle  $C$  = angle  $R$ .

$AC = 6$  cm.

$BC = 14$  cm.

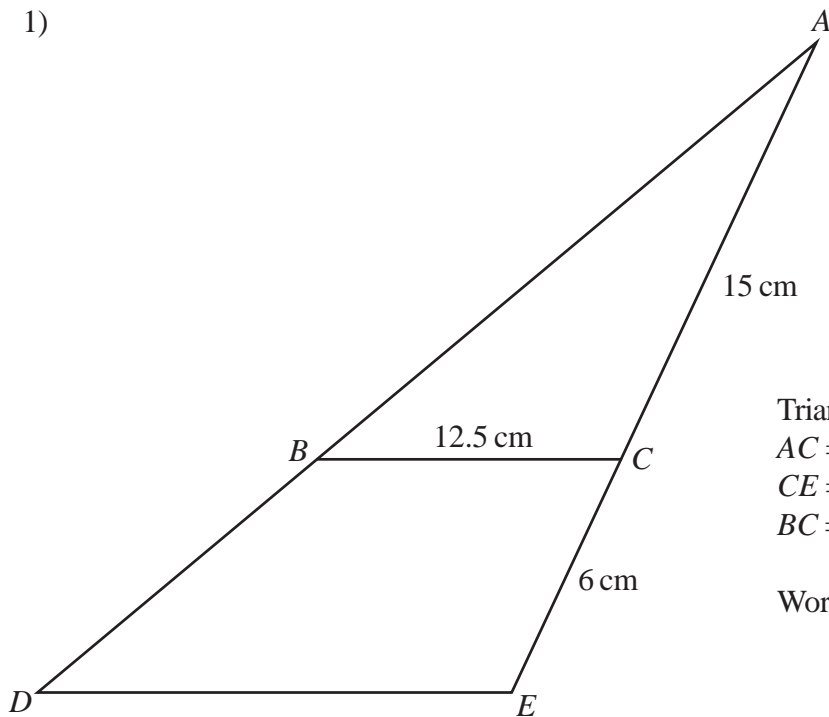
$PR = 9$  cm.

$PQ = 15$  cm

- Work out the length of  $QR$ .
- Work out the length of  $AB$ .



1)



Triangle  $ABC$  is similar to triangle  $ADE$ .  
 $AC = 15$  cm.  
 $CE = 6$  cm.  
 $BC = 12.5$  cm.

Work out the length of  $DE$ .



2)  $ABC$  and  $AED$  are straight lines.

$EB$  is parallel to  $DC$ .

Angle  $ACD = 90^\circ$

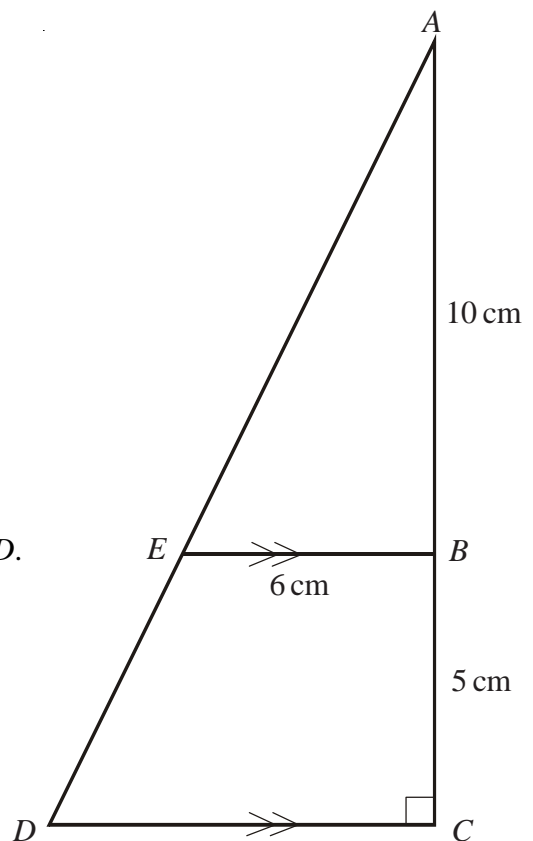
$AB = 10$  cm

$BC = 5$  cm

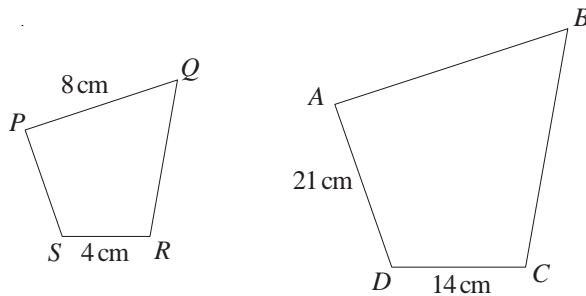
$EB = 6$  cm

a) Work out the length of  $DC$ .

b) Work out the area of the trapezium  $EBCD$ .



- 1) The diagram shows two quadrilaterals that are mathematically **similar**.

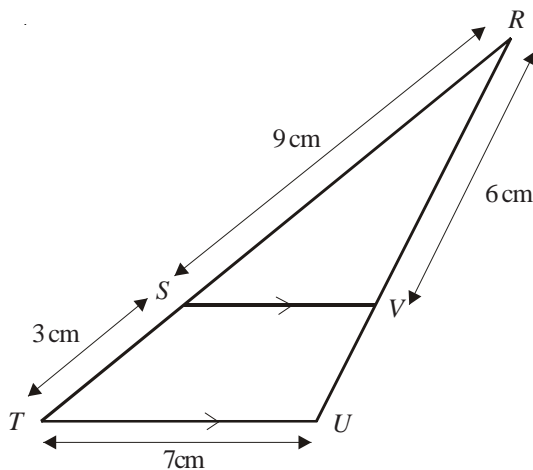


- Calculate the length of  $AB$
- Calculate the length of  $PS$



- 2)  $SV$  is parallel to  $TU$ .  
 $RST$  and  $RVU$  are straight lines.  
 $RS = 9$  cm,  $ST = 3$  cm,  $TU = 7$  cm,  $RV = 6$  cm

Calculate the length of  $VU$ .



- 3)  $BE$  is parallel to  $CD$ .  
 $ABC$  and  $AED$  are straight lines.  
 $AB = 4$  cm,  $BC = 6$  cm,  $BE = 5$  cm,  $AE = 4.4$  cm

- Calculate the length of  $CD$ .
- Calculate the length of  $ED$ .

