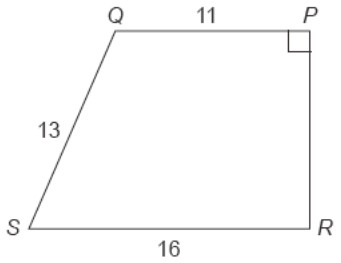
Pythagoras' Theorem Part 2

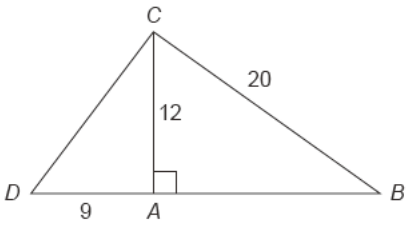
6. The following figure shows a trapezium with $PQ // RS$, $PQ = 11$, $QS = 13$ and $RS = 16$.



(a) Find the length of PR.

(b) Find the area of the trapezium.

7. In the figure, $AC = 12$, $AD = 9$, $BC = 20$ and BAD is a straight line.

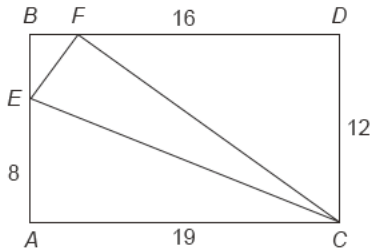


(a) Find the length of CD.

(b) Find the length of AB.

(c) Show that ΔBCD is a right-angled triangle.

8. In the figure, $ABDC$ is a rectangle.



(a) Find FC, EC and EF in surd from.

(b) Show that ΔEFC is a right-angled triangle.

(c) Hence find the area of ΔEFC.