

YEAR 8 MATHEMATICS GEOMETRY JIGSAW

COURSE/LEVEL

NSW Secondary High School Year 8 Mathematics.

TOPIC

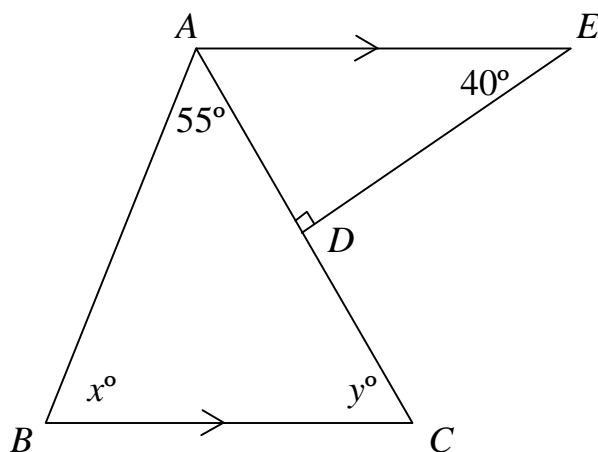
- Geometry

SUMMARY

Students work in small groups to put into order the solution to a geometrical problem.

INSTRUCTIONS

- The following geometrical problem has been solved for you. However, it has been cut into 17 pieces. Your task is to arrange the pieces into correct order to recreate the solution.
- The following pages contain multiple copies of each piece of the puzzle. (There are 10 copies per page.)
- The solution is on the last page.



Find x° and y° .

$$:90^\circ + 40^\circ + \angle DAE = 180^\circ$$

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$$AE \parallel BC, \angle AED = 40^\circ, \angle EDA = 90^\circ, \angle BAC = 55^\circ.$$

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$$\angle EAB = 55^\circ + 50^\circ$$

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$$130^\circ + \angle DAE = 180^\circ$$

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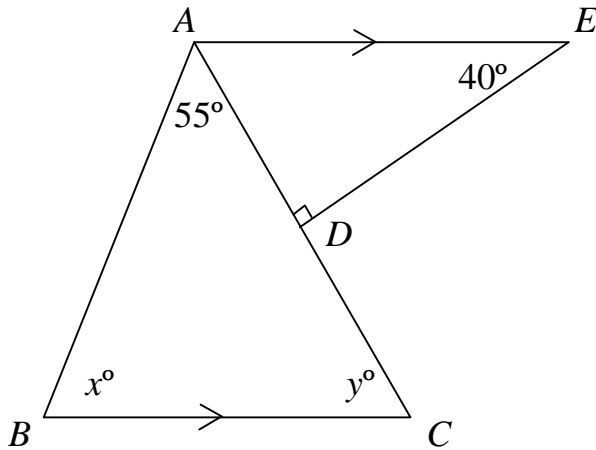
(∠sum of $\triangle DAE$)

(∠sum of $\triangle DAE$)

(∠sum of $\triangle DAE$)

(∠sum of $\triangle DAE$)

Solution



Find x° and y° .

Aim: To find x° and y° .

Given: $AE \parallel BC$, $\angle AED = 40^\circ$, $\angle EDA = 90^\circ$, $\angle BAC = 55^\circ$.

Proof: $90^\circ + 40^\circ + \angle DAE = 180^\circ$ (\angle sum of $\triangle DAE$)

$$130^\circ + \angle DAE = 180^\circ$$

$$\therefore \angle DAE = 50^\circ$$

$$\therefore y^\circ = 50^\circ \text{ (alt } \angle\text{s, } AE \parallel BC)$$

$$\angle EAB = 55^\circ + 50^\circ \text{ (adj } \angle\text{s)}$$

$$= 105^\circ$$

$$x^\circ + 105^\circ = 180^\circ \text{ (co-int } \angle\text{s, } AE \parallel BC)$$

$$\therefore x^\circ = 75^\circ.$$