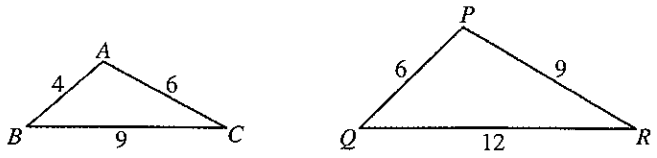
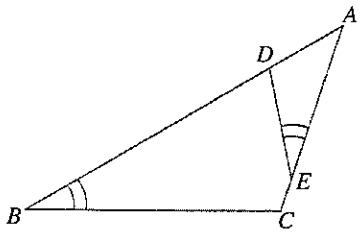
10. **(a)**



In the diagram, are $\triangle ABC$ and $\triangle PQR$ similar? Explain your answer.

(b)

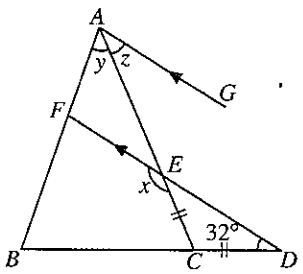


In the diagram, $\angle ABC = \angle AED$, $AD = 2$ cm, $BD = 4$ cm and $CE = 1$ cm.

(i) Show that $\triangle ABC$ is similar to $\triangle AED$.

(ii) Find the length of AE.

11. In the diagram, AFB, AEC, BCD and DEF are straight lines. $DF \parallel GA$, $AB = AC$, $CD = CE$ and $\angle CDE = 32°$. Calculate the angles x, y and z.

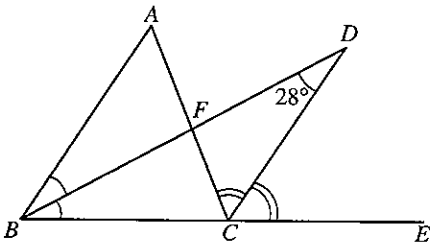


12. In the diagram, BCE is a straight line, BD and CD are the bisectors of $\angle ABC$ and $\angle ACE$ respectively, and $\angle BDC = 28°$.

(a) Calculate $\angle BAC$.

(b) If DM and DN are perpendiculars from D to CE and AC respectively, what is the relationship between DM and DN?

(c) If $BA \parallel CD$, find $\angle ACE$.

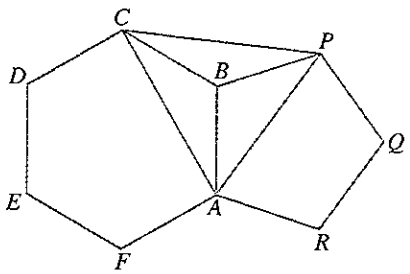


13. In the diagram, $ABCDEF$ is a regular hexagon and $ABPQR$ is a regular pentagon. Find

(a) $\angle ABC$,

(b) $\angle ABP$,

(c) $\angle ACP$.



14. **(a)** The angles of a pentagon are $x°$, $(x + 15)°$, $(x - 10)°$, $(2x - 35)°$ and $105°$ respectively. Find the value of x.

(b) In a regular polygon, each interior angle is $36°$ more than 5 times its exterior angle. Find the number of sides of this polygon.