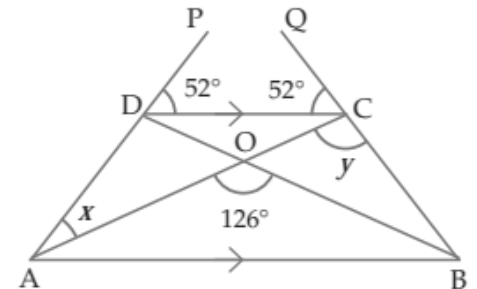
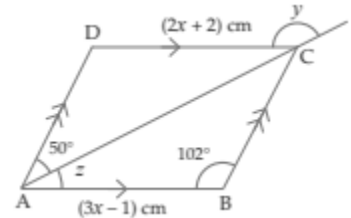


Class – IX

Topic – Rectilinear figure

- In a pentagon ABCDE, AB is parallel to DC and angle A: angle E: angle D = 3:4:5. Find angle E.
- The sum of the interior angles of a polygon is 5 times the sum of its exterior angles. Find the number of sides in the polygon.
- Each interior angle of a regular polygon is 160° . Find the interior angle of another regular polygon whose number of sides is two thirds of number of sides of the given polygon?
- Three angles of a seven sided polygon are 132° each and the remaining four angles are equal. Find the value of each equal angle.
- In a parallelogram, both the pairs of opposite angles are equal.
- The angle between two altitudes of a parallelogram through the vertex of an obtuse angle of the parallelogram is 60° . Find the angles of the parallelogram.
- In the adjoining figure, ABCD is a parallelogram. Find the values of x, y and z.
- In the adjoining figure, ABCD is a square and CDE is an equilateral triangle. Find (i) $\angle AED$ (ii) $\angle EAB$ (iii) reflex $\angle AEC$.
- If E and F are points on diagonal AC of a parallelogram ABCD such that $AE = CF$, then show that BFDE is a parallelogram.
- In the adjoining figure, ABCD is a trapezium. If $\angle AOB = 126^\circ$ and $\angle PDC = \angle QCD = 52^\circ$, find the values of x and y.



Answer

1. $\angle E = 120^\circ$
2. $n = 12$
3. Interior angle = 150°
4. Measure of each equal angle is 126°
5. Proving.
6. $60^\circ, 120^\circ, 60^\circ, 120^\circ$
7. $x = 3; y = 78^\circ$ and $z = 28^\circ$
8. (i) $\angle AED = 75^\circ$ (ii) $\angle AED = 15^\circ$ (iii) reflex $\angle AEC = 225^\circ$
9. Proving
10. $x = 25^\circ$ and $y = 101^\circ$