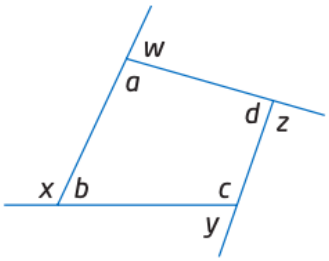
MTH1W

# Angle Relationships in Quadrilaterals

- The sum of the interior angles of a quadrilateral is 360°.
- The sum of the exterior angles of a quadrilateral is 360°.

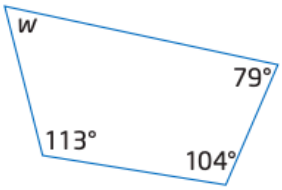



Interior angles:
$a + b + c + d = 360°$

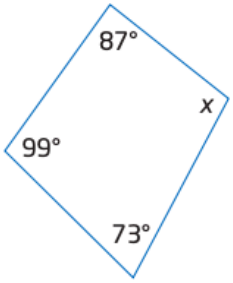
Exterior angles:
$w + x + y + z = 360°$

**1.** Find the angle measures $w$, $x$, $y$, and $z$.

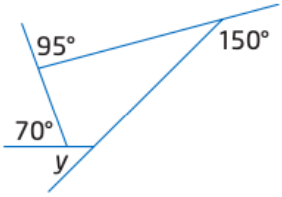
**a)**



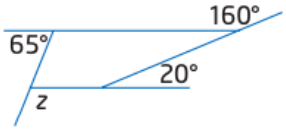

**b)**




**c)**




**d)**

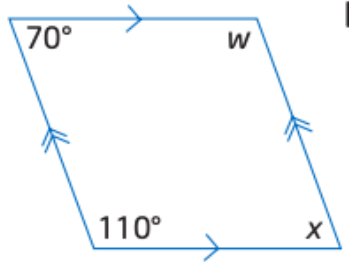



**2.** The measures of three of the interior angles of a quadrilateral are 40°, 90°, and 120°. The measure of the fourth interior angle is _____

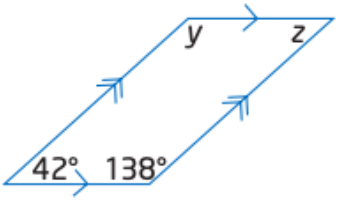
**3.** The measures of exterior angles at three vertices of a quadrilateral are 80°, 100°, and 120°. The measure of an exterior angle at the fourth vertex is _____

**5.** Find the measure of each unknown angle.

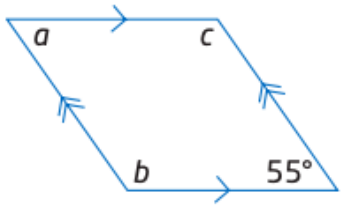
**a)**




**b)**

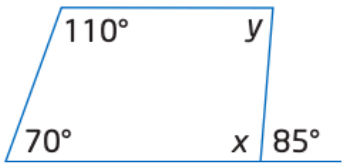



**c)**

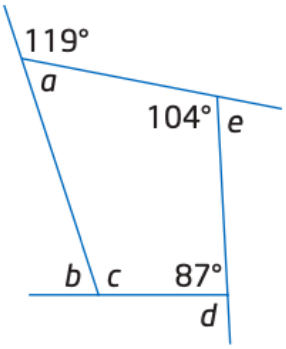



**7.** Find the measure of each unknown angle.

**a)**




**b)**




**13.** Find the measure of each unknown angle.