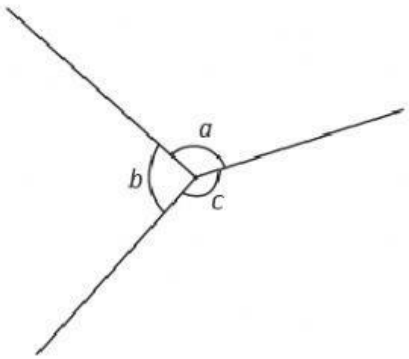
Practice 2 Angles at a Point

1. In each of the figures below, the lines meet at a point. Using a protractor, measure and find each unknown marked angle.

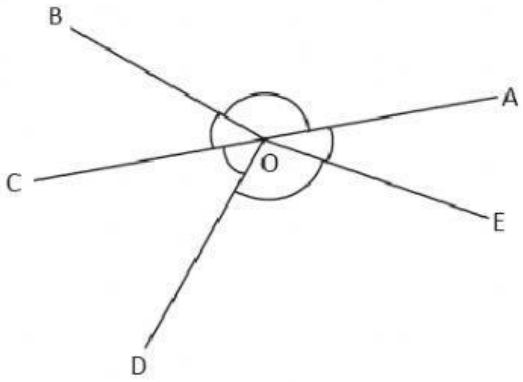
(a)



$\angle a =$ ____°
$\angle b =$ ____°
$\angle c =$ ____°

$\angle a + \angle b + \angle c$
= ____° + ____° + ____°
= ____°

(b)

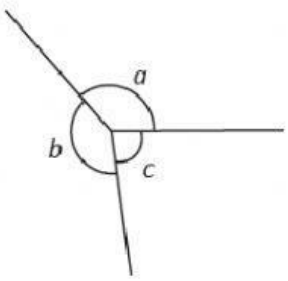


$\angle AOB =$ ____°
$\angle BOC =$ ____°
$\angle COD =$ ____°
$\angle DOE =$ ____°
$\angle EOA =$ ____°

$\angle AOB + \angle BOC + \angle COD + \angle DOE + \angle EOA$
= ____° + ____° + ____° + ____° + ____°
= ____°

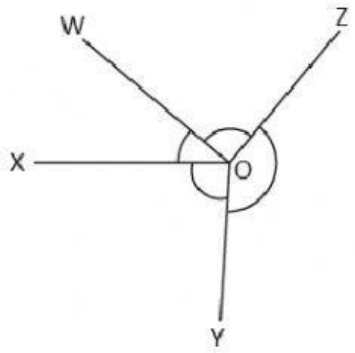
2. Name the angles at a point that have a sum of 360°.

(a)



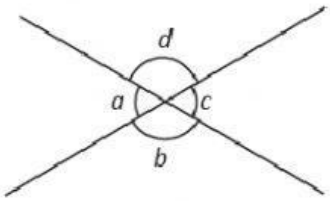
$\angle\square + \angle\square + \angle\square$
$= 360°$

(b)



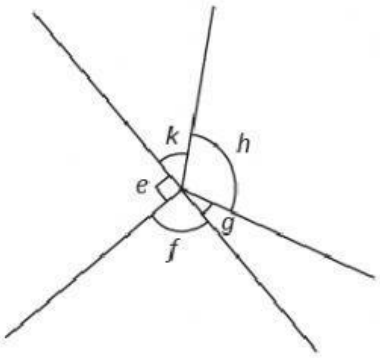
$\angle\square + \angle\square + \angle\square + \angle\square$
$= 360°$

(c)



$\angle a + \angle b + \angle c + \angle d = 360°$

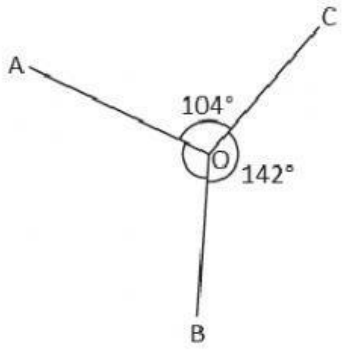
(d)



$\angle\square + \angle\square +$
$\angle\square + \angle\square + \angle\square = 360°$

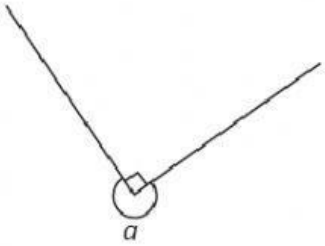
3. Find the unknown marked angles.

(a) Find ∠AOB.



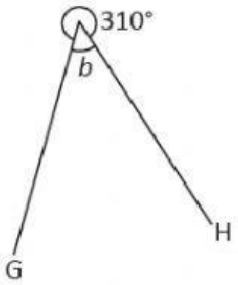
∠AOB = 360 ° − 104 ° − 142 °
= 114 °

(b) Find ∠*a*.



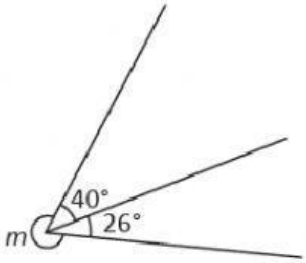
∠*a* = ☐

(c) Find ∠*b*.



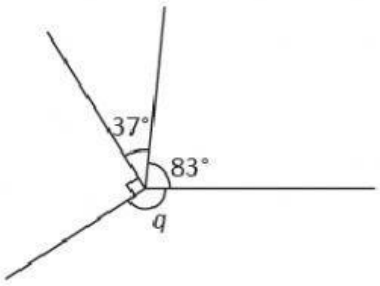
∠*b* = ☐

(d) Find ∠*m*.



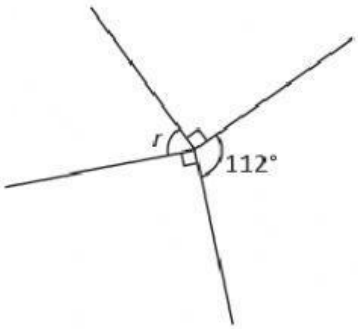
∠*m* = ☐

(e) Find $\angle q$.



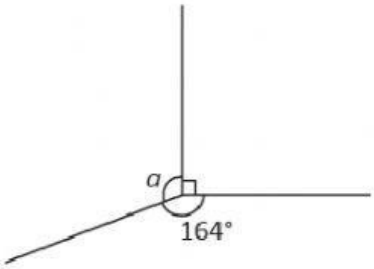
$\angle q =$ ☐

(f) Find $\angle r$.



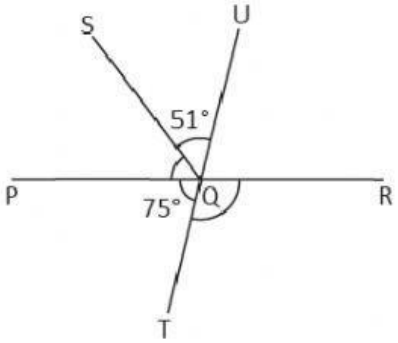
$\angle r =$ ☐

(g) Find $\angle a$.



$\angle a =$ ☐

4. PQR and TQU are straight lines.
Find $\angle PQS$ and $\angle TQR$.



$\angle PQS = 180° - 75° - 51°$
$= 54°$

$\angle TQR = 180° - 75°$
$= 105°$