

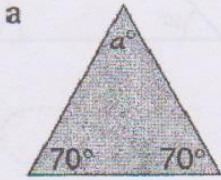


Angle Sum of a Triangle

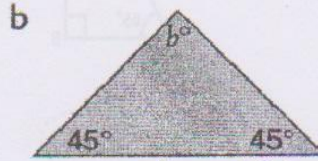


Find the value of the pronumeral in each of the following.

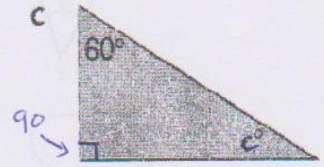
Part 1



$$\begin{aligned}
 1 + 2 + 3 &= 180 \\
 70 + 70 + a &= 180 \\
 140 + a &= 180 \\
 a &= 180 - 140 \\
 \boxed{a = 40}
 \end{aligned}$$

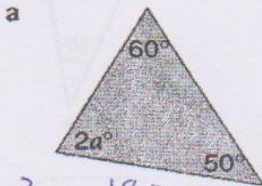


$$\begin{aligned}
 1 + 2 + 3 &= 180 \\
 45 + 45 + b &= 180 \\
 90 + b &= 180 \\
 b &= 180 - 90 \\
 \boxed{b = 90}
 \end{aligned}$$



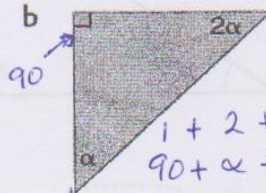
$$\begin{aligned}
 1 + 2 + 3 &= 180 \\
 90 + 60 + c &= 180 \\
 150 + c &= 180 \\
 c &= 180 - 150 \\
 \boxed{c = 30}
 \end{aligned}$$

Part 2

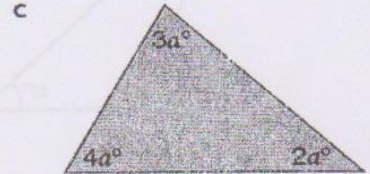


$$\begin{aligned}
 1 + 2 + 3 &= 180 \\
 60 + 50 + 2a &= 180 \\
 110 + 2a &= 180 \\
 2a &= 180 - 110 \\
 2a &= 70 \rightarrow
 \end{aligned}$$

$$\begin{aligned}
 2a &= 70 \\
 a &= 70 \div 2 \\
 \boxed{a = 35}
 \end{aligned}$$



$$\begin{aligned}
 1 + 2 + 3 &= 180 \\
 90 + \alpha + 2\alpha &= 180 \\
 90 + 3\alpha &= 180 \\
 3\alpha &= 180 - 90 \\
 3\alpha &= 90 \\
 \alpha &= 90 \div 3 \\
 \boxed{\alpha = 30}
 \end{aligned}$$



$$\begin{aligned}
 1 + 2 + 3 &= 180 \\
 4a + 3a + 2a &= 180 \\
 9a &= 180 \\
 a &= 180 \div 9 \\
 \boxed{a = 20}
 \end{aligned}$$