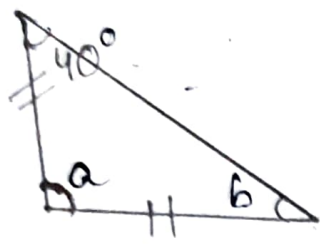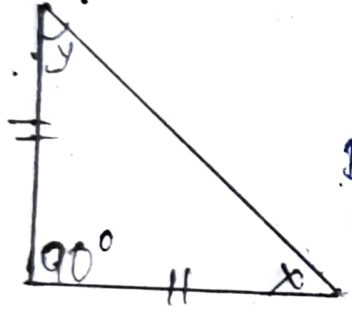ii)

Ans. $b = 40°$ (Angles opposite to equal sides).

But $a + b + 40° = 180°$ (angles of a triangle)

$\Rightarrow a + 40° + 40° = 180°$

$\Rightarrow a + 40° + 40° = 180°$.

$\Rightarrow a + 80° = 180°$.
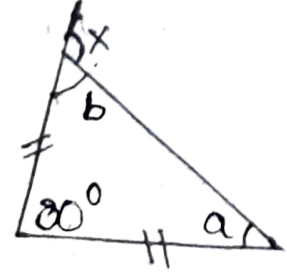
$\Rightarrow a = 180° - 80° = 100°$.

Hence $a = 100°$, $b = 40°$.

iii)

Ans. $x = y$ (Angles opposite to equal sides).

But $x + y + 90° = 180°$ (Angles of a triangle)

$\Rightarrow x + x + 90° = 180°$.

$\Rightarrow 2x + 90° = 180°$.

$\Rightarrow 2x = 180° - 90° = 90°$.

$\Rightarrow x = \dfrac{90°}{2} = 45°$.

∴ Hence $x = 45°$, $y = 45°$.

iv)

Ans. $a = b$ (Angles opposite to equal sides).

But $a + b + 80° = 180°$ (Angles of a triangle)

$\Rightarrow a + a + 80° = 180° \Rightarrow 2a + 80° = 180°$

$\Rightarrow 2a = 180° - 80° = 100°$.

$\Rightarrow a = \dfrac{100°}{2} = 50°$

∴ $b = a = 50°$.

$x = a + 80°$ (Exterior angle of a triangle is equal to sum of its opposite interior angles).

$= 50° + 80° = 130°$.

Hence $a = 50°$, $b = 50°$ and $x = 130°$.