Shapes & Angles

Q) In which of the following cases is a triangle possible with the given group of angles ?

a) 90°, 60°, 30° b) 54°, 54°, 73°

~~Q) Fill in the blanks.~~

⇒ a) $90° + 60° + 30° = 180°$, Possible

b) $54° + 54° + 73° = 181°$, Not possible.

Q) Fill in the blanks with 'obtuse-angled' and 'right-angled'.

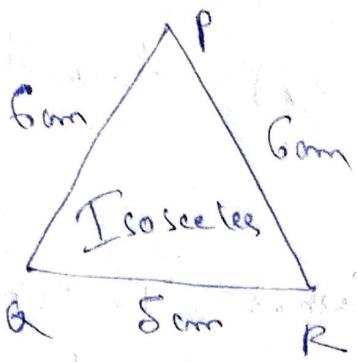
a) In ΔABC, $\angle A = 60°$ and $\angle C = 30°$, then the triangle is Right-angled

b) In ΔPQR, $\angle P = 50°$, $\angle R = 20°$, then the triangle is Obtuse-angled

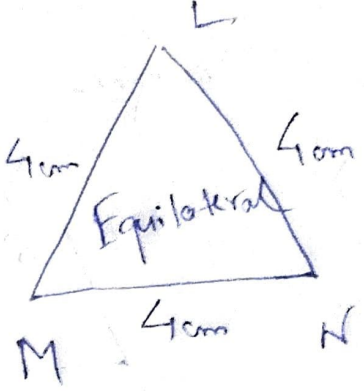
a) $\angle B = 180° - (60° + 30°) = 180° - 90°$
$= 90°$

b) $\angle Q = 180° - (50° + 20°) = 180° - 70°$
$= 110°$

Q) a)



b)

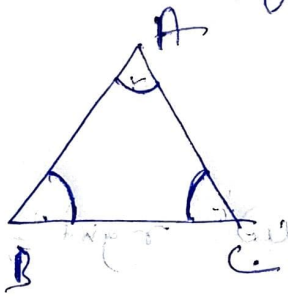


What type of triangle is ΔPQR?

What type of triangle is ΔLMN?

Q) In ΔABC, $\angle A = \angle B = C$ then find the angle of the triangle.

⇒



$$\frac{180^\circ}{3} = 60^\circ$$

$$\angle A = \angle B = \angle C = 60^\circ$$

Questions

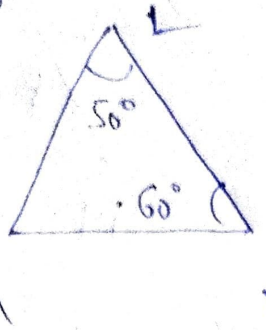
1) In which of the following cases a triangle is possible?

a) $135^\circ, 22^\circ, 22^\circ$ b) $59^\circ, 60^\circ, 61^\circ$

2) In ΔXYZ, $\angle X = 45^\circ$, $\angle Y = 60^\circ$ then $\angle Z = ?$

3) Define obtuse - angled triangle ?

4)



What is the measure of $\angle M$?

5) If in ΔXYZ, $\angle X = 74°$, $\angle Y = 25°$, then the triangle is _____

6) If in ΔABC, $AB = BC$ then ΔABC is _____

7) A triangle is called right - angled if _____

8) Name the triangle whose all angles are acute :