

Triangles or Not?

1. Decide from the information given whether:

- It is possible to construct a unique triangle ABC.
- It is possible to construct more than one triangle ABC.
- It is not possible to construct a triangle ABC with these properties.

Give reasons for your answers (You are not required to perform any accurate constructions).

Information	Triangle possible? Check (☑) the correct answer	Reason
a. Angle B = 50° , AC = 3 cm, BC = 5 cm.	Unique triangle	
	More than one triangle	
	Not possible	
b. AB = 10 cm, BC = 11 cm, AC = 9 cm.	Unique triangle	
	More than one triangle	
	Not possible	
c. Angle A = 40° , Angle B = 60° , Angle C = 80° .	Unique triangle	
	More than one triangle	
	Not possible	
d. AB = 4 cm, BC = 3 cm, Angle B = 30° .	Unique triangle	
	More than one triangle	
	Not possible	

2. Triangle ABC is isosceles with $AB = 5$ cm and Angle $B = 48^\circ$.
Triangle DEF is isosceles with $DE = 5$ cm and Angle $E = 48^\circ$.
Explain why the two triangles may not be identical.


