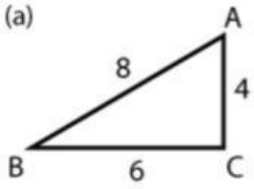
Name: _____ Class: _____ Date: _____

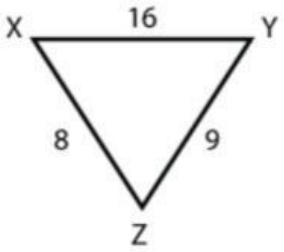
Task 1

Q1) Order the angles from the smallest to the largest:

(a)

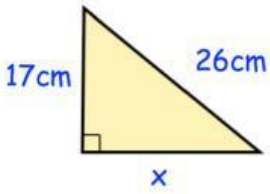


(b)



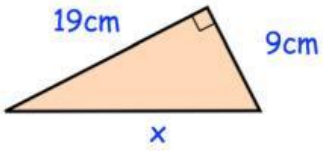
Q2) Find the range of possible values for x:

a)



_____ < x < _____

b)



_____ < x < _____

LIVEWORKSHEETS

Task 2

An engineer in Abu Dhabi is designing a triangular support frame for a shade structure.

He is choosing between two designs:

Design A

- AB: 6 m, BC: 8 m, CD:13 m

Design B

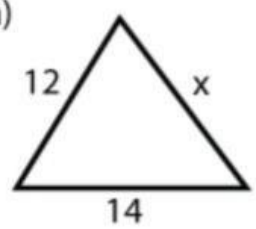
- AB:6 m, BC:8 m, CD:10 m

❓ **Question:**

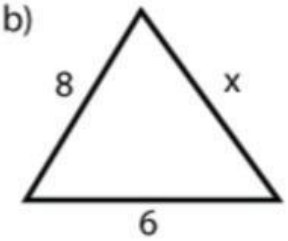
1. **Which design can actually form a triangle?**
2. For the valid design, **identify and justify which angle is the largest**. (Opposite to which side?)

Q3: Find the range of possible values for x:

a)



b)



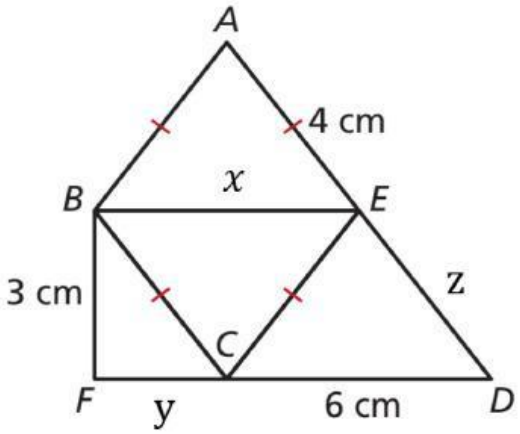
LIVEWORKSHEETS

Task 3

Q1) Nakia is an architect designing a house with a peaked roof. She is trying to decide what the limitations are on her design. If AB is 8 feet and △ABC will be isosceles (AB=BC), describe the possible lengths for AC (Range of values for x)



Q2) Describe the values that are possible for the lengths of x, y, z.

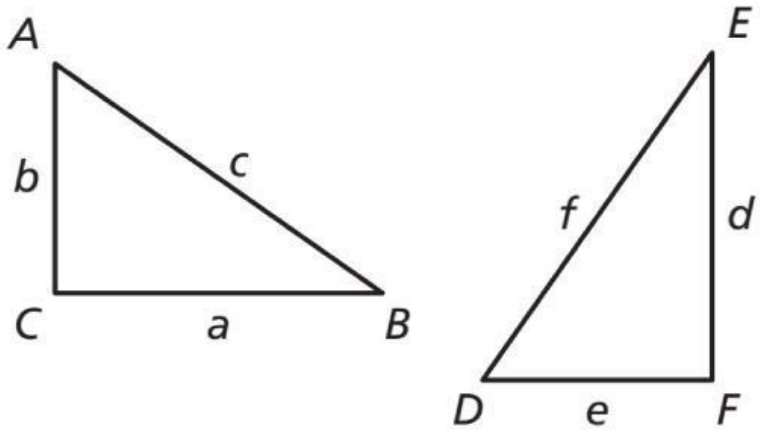


LIVEWORKSHEETS

Task 4: Extension

Given: $\triangle ABC \cong \triangle DEF$

Prove: $d + e > c$



LIVEWORKSHEETS