

All 3 sets of sides must satisfy rule

Side lengths {4,8,2}

$$4 + 8 > 2 \quad \checkmark$$

$$8 + 2 > 4 \quad \checkmark$$

As soon as 1 pair does not sum up to a greater length than the third, you know that the 3 sides CANNOT make a triangle .

$$4 + 2 > 8 \quad \times$$

