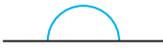


1) • $a + b + c =$ 

True



- Angle a and angle c both measure 60° .
False
- If angle a measures 55° , angle c will measure 25° .
False, it will measure 35° .

2) 75° is the correct missing piece.

3) $a = 34^\circ$
 $b = 33^\circ$
 $c = 15^\circ$

- 1) a) **Never true. The interior angles of a triangle will always sum to 180° . The length of the side does not affect the total of the interior angles.**
- b) **Never true. Two obtuse angles can not be the interior angles of a triangle.**
- c) **Always true. A triangle must always have at least two acute angles.**
- 2) a) **Monika is incorrect. For example, combining the pieces that measure 90° , 100° and 30° would give you 220° which is more than the angles of a triangle add to.**
- b) **Robert is incorrect. For example, the angles he has chosen do add to 180° but they are not the only options. $90^\circ + 80^\circ + 10^\circ$ and $70^\circ + 80^\circ + 30^\circ$ also sum to 180° .**



1) $a = 72^\circ$
 $b = 18^\circ$
 $c = 90^\circ$

2) Angle x measures 43° .

3) a) $a = 25^\circ$
 b) $b = 22^\circ$
 c) $c = 68^\circ$

- 4) a) **George's statement is false. The angles in a triangle add to 180° . 180 is an even number. Three odd numbers added together can not make an even number.**
- b) **Freya's statement is false. If Freya has one angle that is a right angle then the two remaining angles must add to make 90° . This means that the two remaining angles must be less than 90° each. An angle that is less than 90° is an acute angle.**

