

Name:

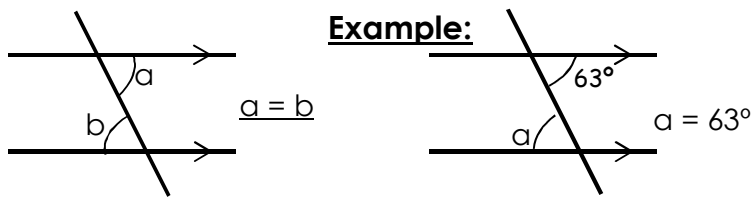
Date:

Parallel Lines.

There are a number of angle facts that can be used when a straight line crosses a pair of parallel lines.

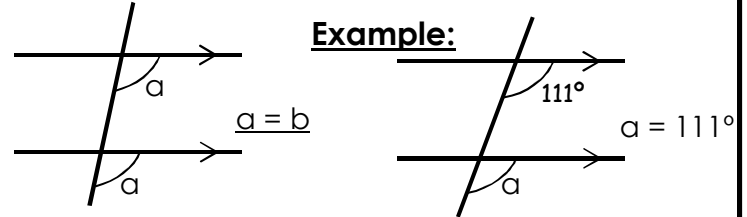
Alternate Angles:

Alternate angles are always equal.



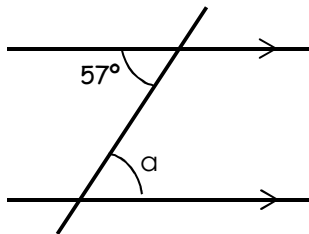
Corresponding Angles:

Corresponding angles are always equal.



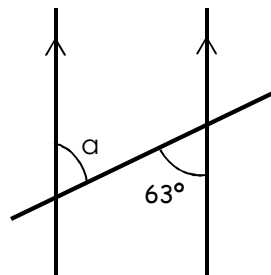
Use the angle rules to calculate the value of the missing angles.

1



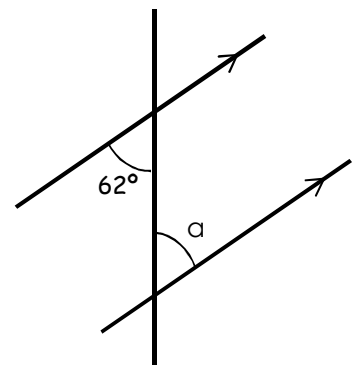
Angle $a =$

2



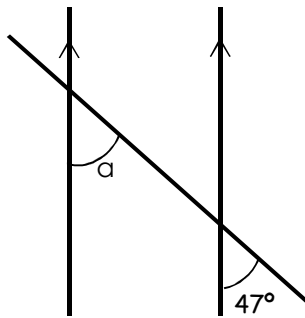
Angle $a =$

3



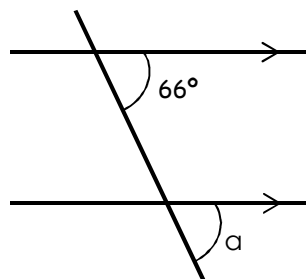
Angle $a =$

4



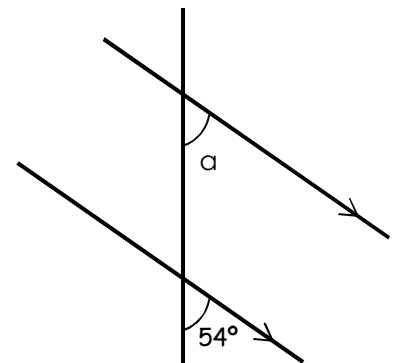
Angle $a =$

5



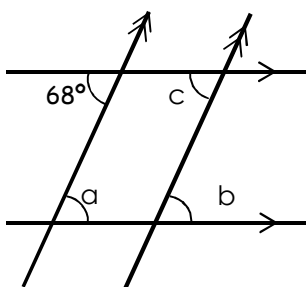
Angle $a =$

6



Angle $a =$

7

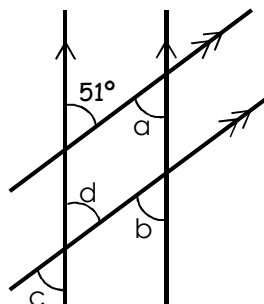


Angle $a =$

Angle $b =$

Angle $c =$

8



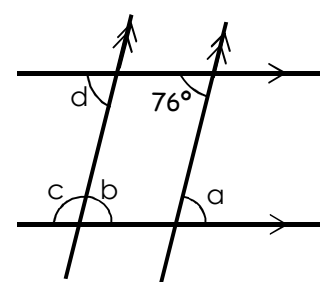
Angle $a =$

Angle $b =$

Angle $c =$

Angle $d =$

9



Angle $a =$

Angle $b =$

Angle $c =$

Angle $d =$

Answers:

1) Angle $a = 57^\circ$ (alternate)

2) Angle $a = 63^\circ$ (alternate)

3) Angle $a = 62^\circ$ (alternate)

4) Angle $a = 47^\circ$ (corresponding)

5) Angle $a = 66^\circ$ (corresponding)

6) Angle $a = 54^\circ$ (corresponding)

7) Angle $a = 68^\circ$ (alternate)

Angle $b = 68^\circ$ (a and b are corresponding)

Angle $c = 68^\circ$ (corresponding or b and c are alternate)

8) Angle $a = 51^\circ$ (alternate)

Angle $b = 51^\circ$ (a and b are corresponding)

Angle $c = 51^\circ$ (b and c are corresponding)

Angle $d = 51^\circ$ (corresponding or b and d are alternate)

9) Angle $a = 76^\circ$ (alternate)

Angle $b = 76^\circ$ (a and b are corresponding)

* Angle $c = 104^\circ$ (straight line)

Angle $d = 76^\circ$ (corresponding or b and d are alternate)