

Alternate Angles

Use the marked parallel lines to find the two missing alternate interior angles.

1. Find angles 1 and 4.
Given: $A_2 = 147^\circ$; $A_3 = 33^\circ$

A1, A4: _____

2. Find angles 2 and 3.
Given: $A_1 = 120^\circ$; $A_4 = 60^\circ$

A2, A3: _____

3. Find angles 2 and 3.
Given: $A_1 = 37^\circ$; $A_4 = 143^\circ$

A2, A3: _____

4. Find angles 1 and 4.
Given: $A_2 = 74^\circ$; $A_3 = 106^\circ$

A1, A4: _____

5. Find angles 1 and 2.
Given: $A_3 = 144^\circ$; $A_4 = 36^\circ$

A1, A2: _____

6. Find angles 1 and 2.
Given: $A_3 = 48^\circ$; $A_4 = 132^\circ$

A1, A2: _____

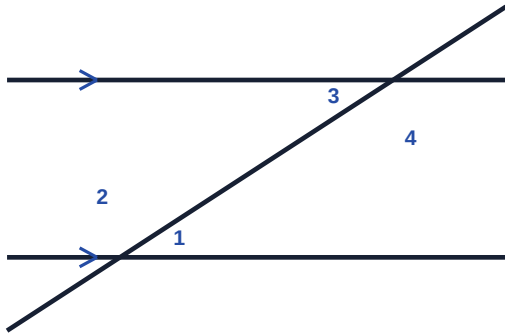
Alternate Angles

Worked Answer Key

Use the marked parallel lines to find the two missing alternate interior angles.

1. Find angles 1 and 4.

Given: $A_2 = 147^\circ$; $A_3 = 33^\circ$



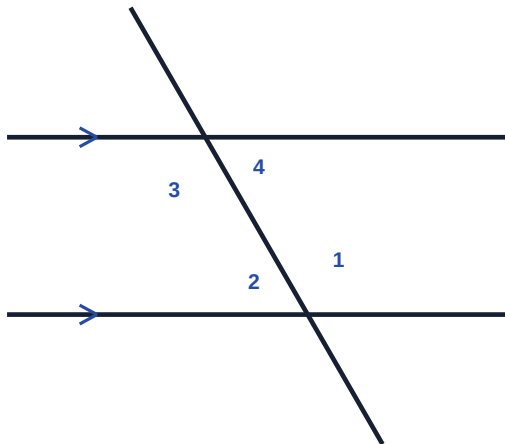
Angle 1 = angle 3 = 33° because alternate interior angles on parallel lines are equal.

Angle 4 = angle 2 = 147° because alternate interior angles on parallel lines are equal.

Answers: $A_1 = 33^\circ$; $A_4 = 147^\circ$

2. Find angles 2 and 3.

Given: $A_1 = 120^\circ$; $A_4 = 60^\circ$



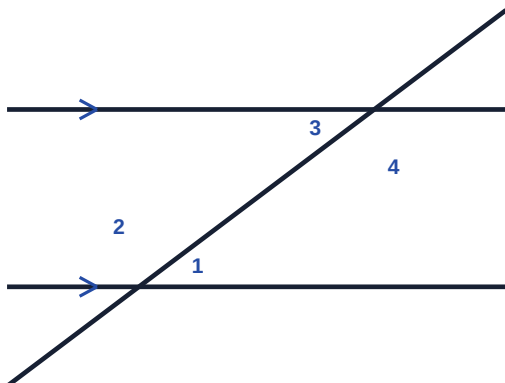
Angle 2 = angle 4 = 60° because alternate interior angles on parallel lines are equal.

Angle 3 = angle 1 = 120° because alternate interior angles on parallel lines are equal.

Answers: $A_2 = 60^\circ$; $A_3 = 120^\circ$

3. Find angles 2 and 3.

Given: $A_1 = 37^\circ$; $A_4 = 143^\circ$



Angle 2 = angle 4 = 143° because alternate interior angles on parallel lines are equal.

Angle 3 = angle 1 = 37° because alternate interior angles on parallel lines are equal.

Answers: $A_2 = 143^\circ$; $A_3 = 37^\circ$

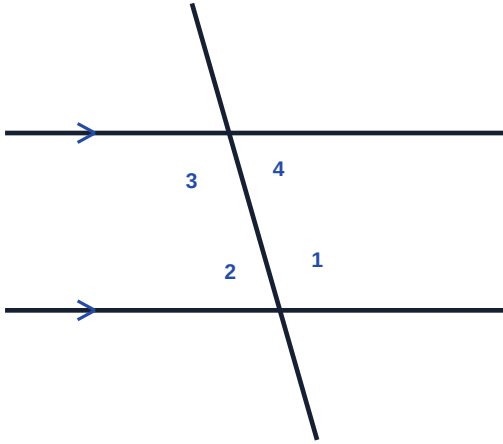
Alternate Angles

Worked Answer Key

Use the marked parallel lines to find the two missing alternate interior angles.

4. Find angles 1 and 4.

Given: $A_2 = 74^\circ$; $A_3 = 106^\circ$



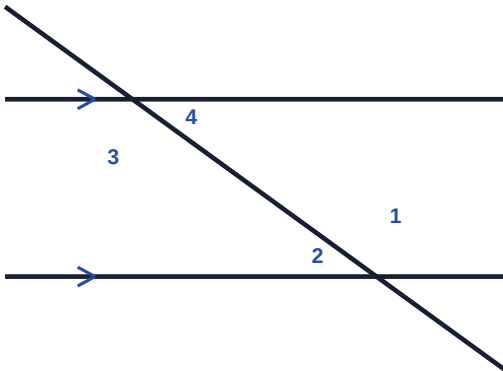
Angle 1 = angle 3 = 106° because alternate interior angles on parallel lines are equal.

Angle 4 = angle 2 = 74° because alternate interior angles on parallel lines are equal.

Answers: $A_1 = 106^\circ$; $A_4 = 74^\circ$

5. Find angles 1 and 2.

Given: $A_3 = 144^\circ$; $A_4 = 36^\circ$



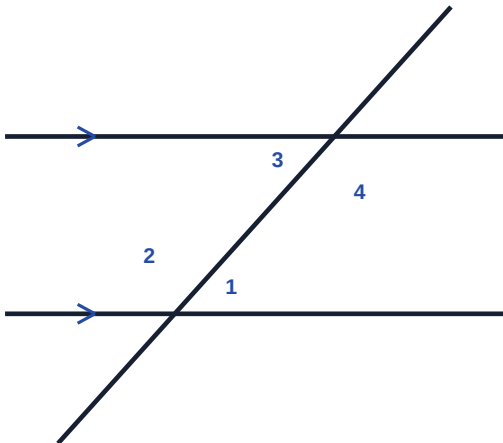
Angle 1 = angle 3 = 144° because alternate interior angles on parallel lines are equal.

Angle 2 = angle 4 = 36° because alternate interior angles on parallel lines are equal.

Answers: $A_1 = 144^\circ$; $A_2 = 36^\circ$

6. Find angles 1 and 2.

Given: $A_3 = 48^\circ$; $A_4 = 132^\circ$



Angle 1 = angle 3 = 48° because alternate interior angles on parallel lines are equal.

Angle 2 = angle 4 = 132° because alternate interior angles on parallel lines are equal.

Answers: $A_1 = 48^\circ$; $A_2 = 132^\circ$