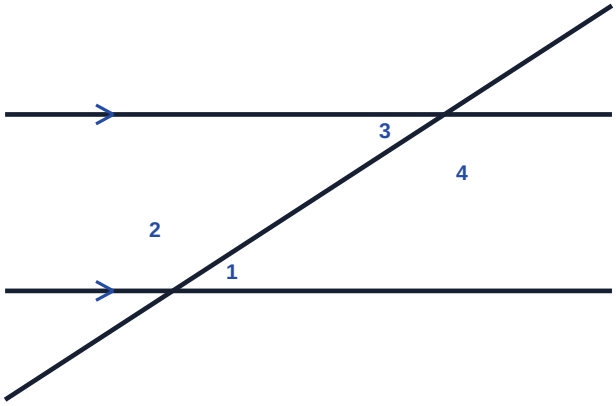
Math Sheet

Name _____ Score _____ Teacher _____ Date _____

Alternate Angles

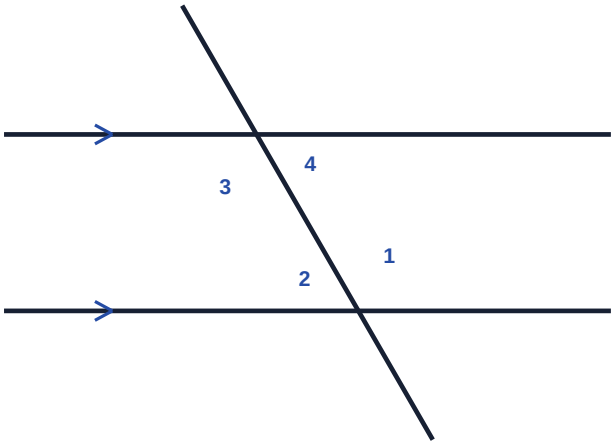
Use the marked parallel lines to find the two missing alternate interior angles.

1. Find angles 1 and 4.
Given: A2 = 147 deg; A3 = 33 deg



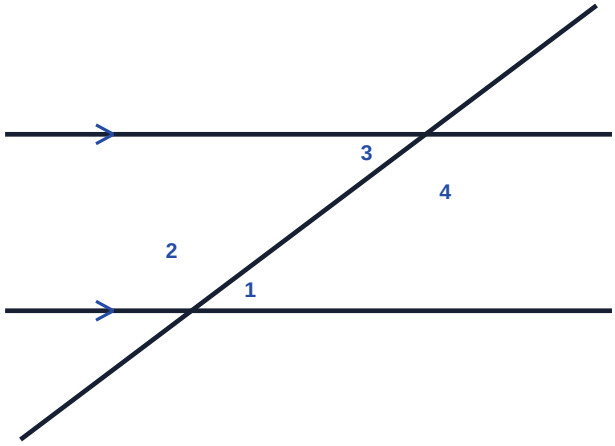
A1, A4: _____

2. Find angles 2 and 3.
Given: A1 = 120 deg; A4 = 60 deg



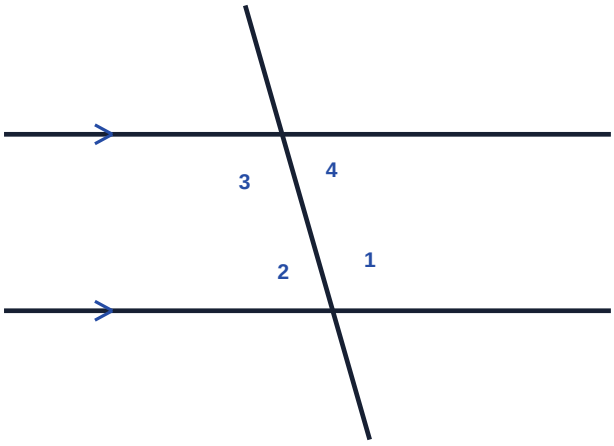
A2, A3: _____

3. Find angles 2 and 3.
Given: A1 = 37 deg; A4 = 143 deg



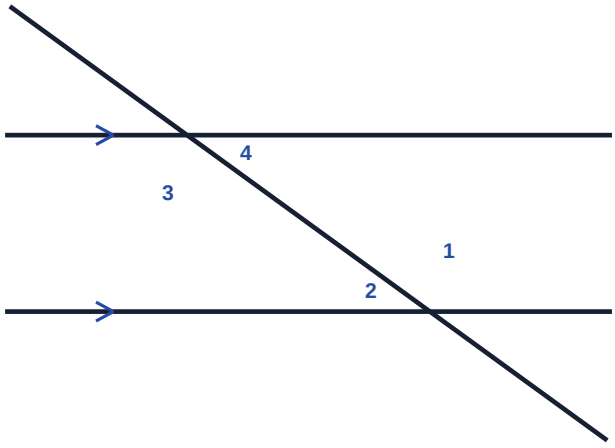
A2, A3: _____

4. Find angles 1 and 4.
Given: A2 = 74 deg; A3 = 106 deg



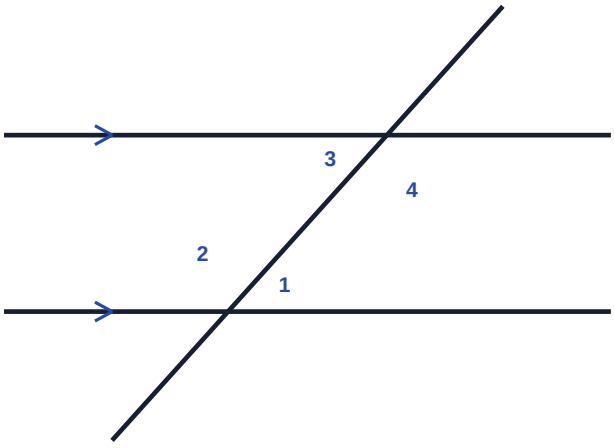
A1, A4: _____

5. Find angles 1 and 2.
Given: A3 = 144 deg; A4 = 36 deg



A1, A2: _____

6. Find angles 1 and 2.
Given: A3 = 48 deg; A4 = 132 deg



A1, A2: _____

Alternate interior angles are equal when a transversal crosses parallel lines.

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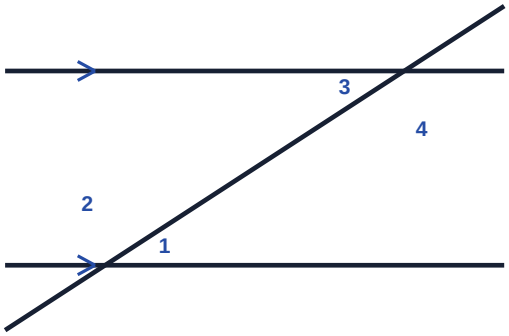
Alternate Angles

Worked Answer Key

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

1. Find angles 1 and 4.
Given: A2 = 147 deg; A3 = 33 deg

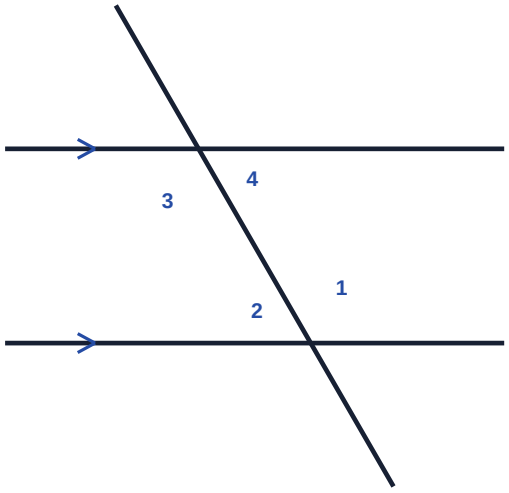


Angle 1 = angle 3 = 33 deg because alternate interior angles on parallel lines are equal.

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

Answers: A1 = 33 deg; A4 = 147 deg

2. Find angles 2 and 3.
Given: A1 = 120 deg; A4 = 60 deg

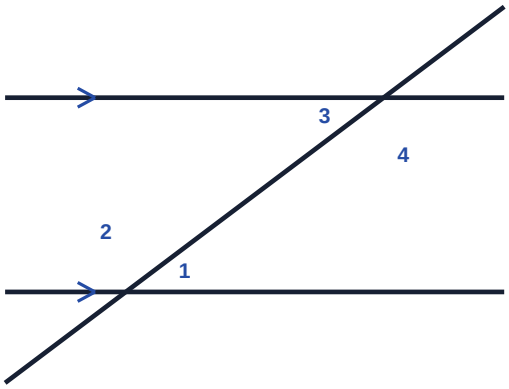


Angle 2 = angle 4 = 60 deg because alternate interior angles on parallel lines are equal.

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

Answers: A2 = 60 deg; A3 = 120 deg

3. Find angles 2 and 3.
Given: A1 = 37 deg; A4 = 143 deg



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

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

Answers: A2 = 143 deg; A3 = 37 deg

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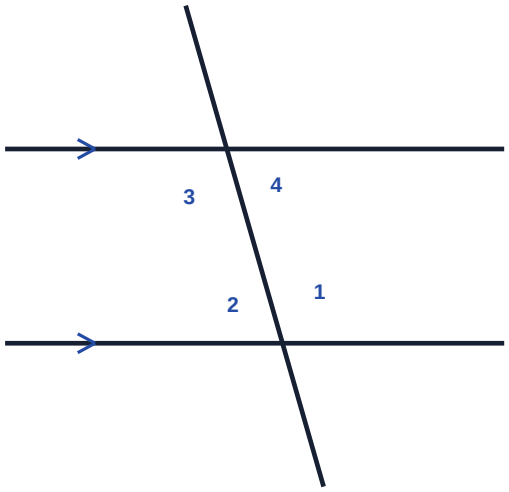
Alternate Angles

Worked Answer Key

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

4. Find angles 1 and 4.
Given: A2 = 74 deg; A3 = 106 deg

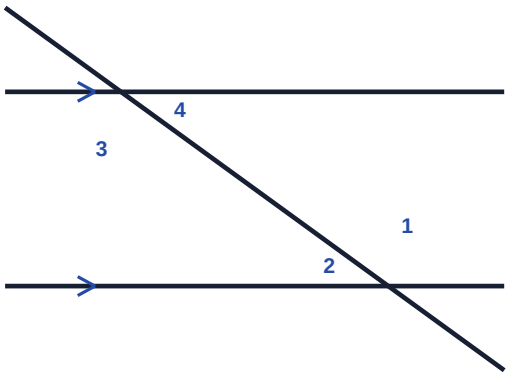


Angle 1 = angle 3 = 106 deg because alternate interior angles on parallel lines are equal.

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

Answers: A1 = 106 deg; A4 = 74 deg

5. Find angles 1 and 2.
Given: A3 = 144 deg; A4 = 36 deg

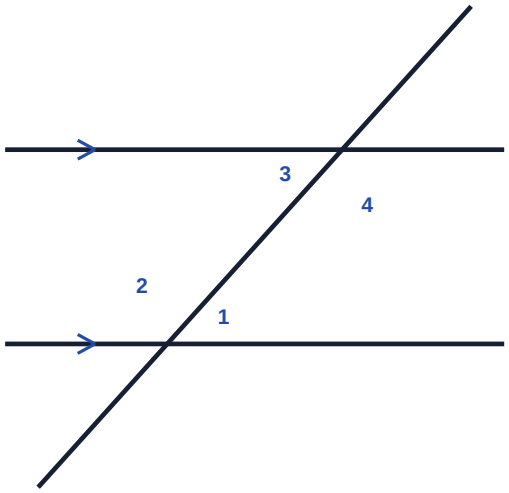


Angle 1 = angle 3 = 144 deg because alternate interior angles on parallel lines are equal.

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

Answers: A1 = 144 deg; A2 = 36 deg

6. Find angles 1 and 2.
Given: A3 = 48 deg; A4 = 132 deg



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

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

Answers: A1 = 48 deg; A2 = 132 deg