

# Angle Facts

Name:

Date:

**INQUIRY**

The roof of a traditional Korean hanok has specific angles designed to let rain flow off perfectly. What angles matter?

Discuss with your partner. Write your initial ideas below:

## Key Vocabulary

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| Term        | Definition                   |
|-------------|------------------------------|
| Acute       | Less than 90 degrees.        |
| Right angle | Exactly 90 degrees.          |
| Obtuse      | Between 90 and 180 degrees.  |
| Reflex      | Between 180 and 360 degrees. |

## Part A — Angle Rules

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1. Angles on a straight line: one angle is 127 degrees. Find the other. [1 marks]

Show your working:

2. Vertically opposite angles: one is 63 degrees. Find the other. [1 marks]

Show your working:

3. Angles in a triangle: 47 degrees and 85 degrees. Find the third. [1 marks]

Show your working:

4. Angles at a point: 130, 95, and  $x$  degrees. Find  $x$ . [2 marks]

Show your working:

## Part B — Parallel Lines

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5. Two parallel lines cut by a transversal. Angle  $a = 72$  degrees. Find all 8 angles, naming each type (alternate, corresponding, co-interior). [5 marks]

## Part C — Application

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6. A Nanjing road junction has 4 roads meeting at a point. Three angles are 95, 78, and 112 degrees. Find the fourth. [2 marks]

Show your working: