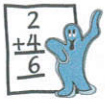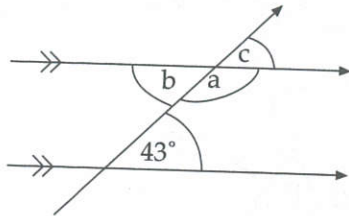# Angle Properties of Parallel Lines – Finding unknown angles on parallel lines.

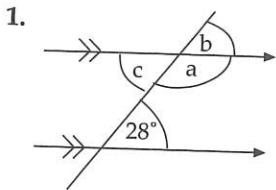**Example**

Calculate the missing angles giving appropriate reasons.
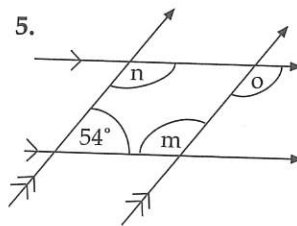

$a = 137°$ Cointerior angles sum to give 180°, parallel lines.

$b = 43°$ Alternate angles are equal, parallel lines.
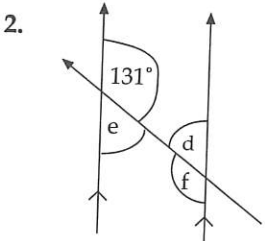
$c = 43°$ Corresponding angles are equal, parallel lines.
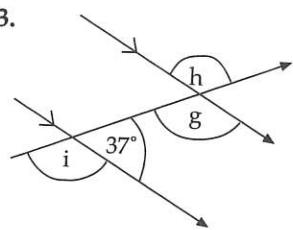
Problems

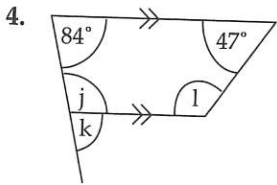Calculate the missing angles.

1.

a = _____

b = _____

c = _____

2.

d = _____

e = _____

f = _____

3.

g = _____

h = _____

i = _____

4.

j = _____

k = _____

l = _____

5.

m = _____

n = _____

o = _____

Find the missing angles giving appropriate reasons.

6.
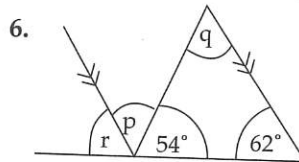
p = _____

q = _____
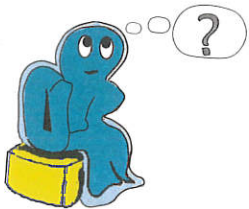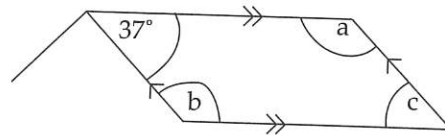
r = _____

Reason for p

_____

Reason for q

_____

Reason for r

_____

Application Problem

The roof of a building is depicted in the diagram below. Calculate the missing angles.

Problem Solving

A girl has a large number of counters. She notices that when she divides them by the number 5, 6 or 7 there is always exactly one left over. What is the minimum numbers of counters she could have?

_____

_____

_____

I found this work

Easy   OK   Difficult

Proportion completed

None   Few   Half   Most   All

Date: _____