Angles

- Recognising and naming different types of angle
- Measuring angles
- Calculating angles

Keywords

You should know

explanation 1

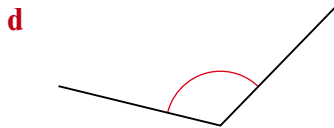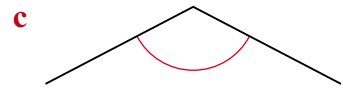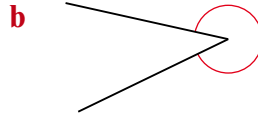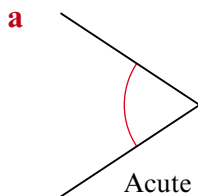**1** Describe each of these angles. The first one has been done for you.
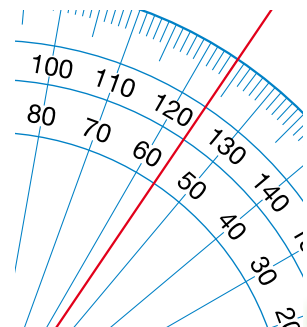
a

Acute

b

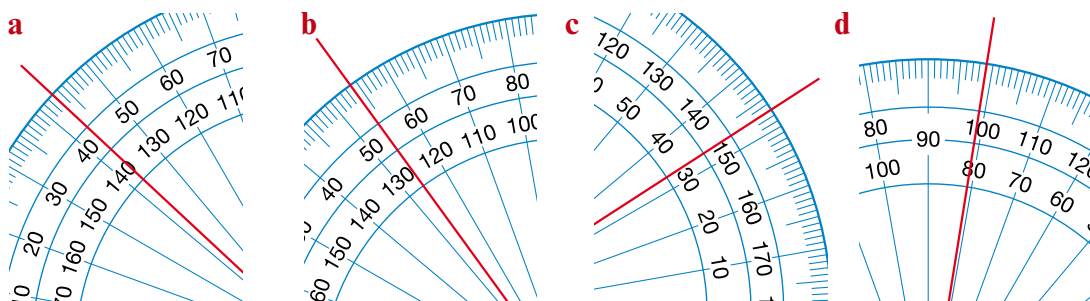c

d

e

f

g

h

i
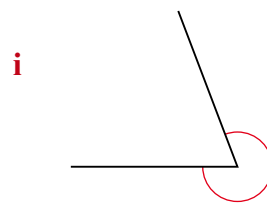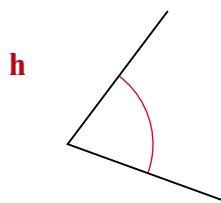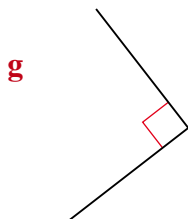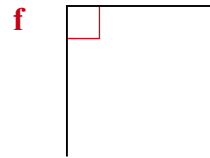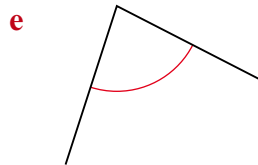
explanation 2a   explanation 2b

2 Sophie is measuring an *acute* angle between two lines with a 180° protractor.

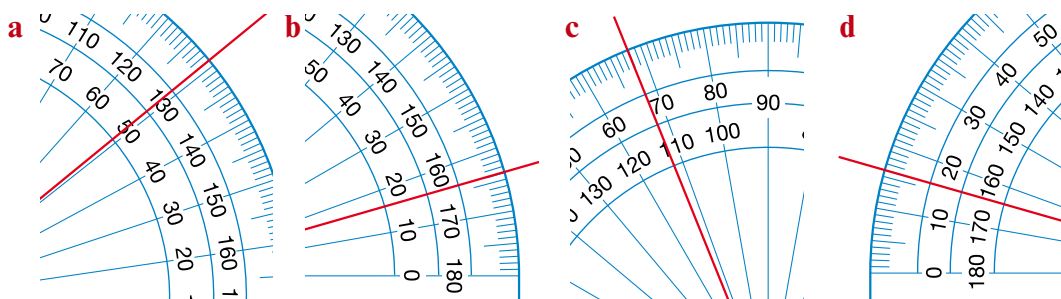The diagram shows part of the protractor scale and one of the lines.

Read the scale to find the size of the angle.

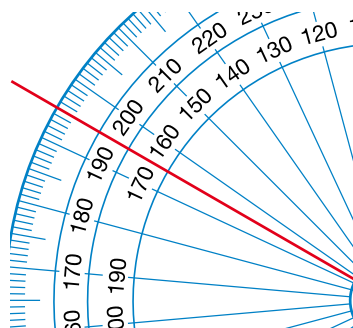**3** Find the *acute* angles shown on these protractor scales.

a

b

c

d

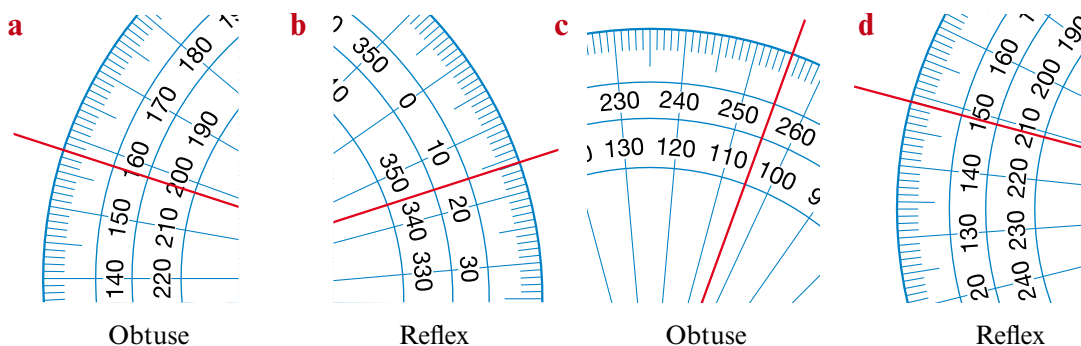**4** Find the *obtuse* angles shown on these protractor scales.

a

b

c

d

5 Jeremy is measuring a *reflex* angle between two lines with a 360° protractor.

The diagram shows part of the protractor scale and one of the lines.

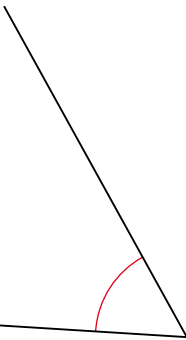Read the scale to find the size of the angle.

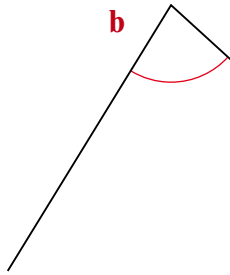**6** Use the information given on these diagrams to find the unknown angles.

a

Obtuse

b

Reflex

c

Obtuse

d

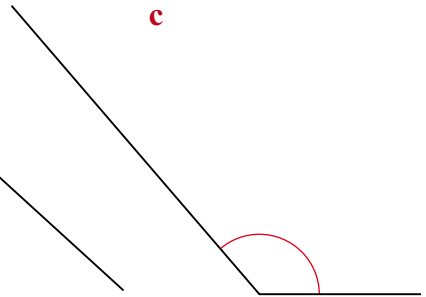Reflex

7 Measure these angles with a protractor.

a

b

c

d
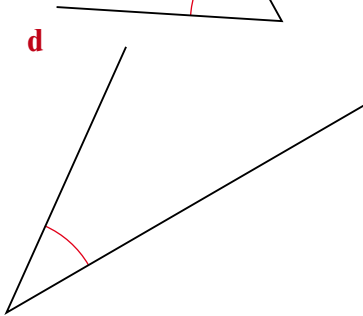
e
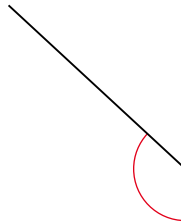
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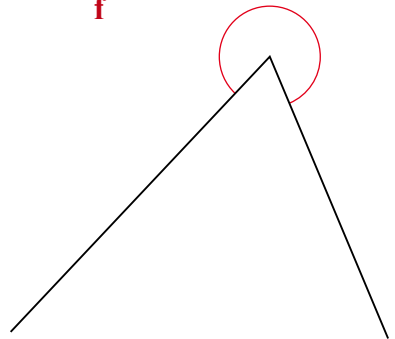
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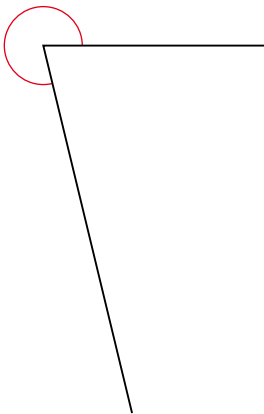
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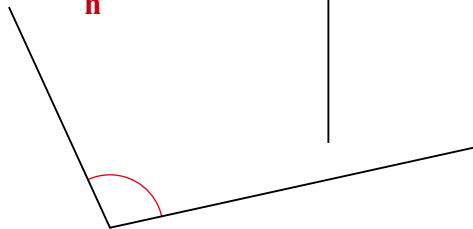
i
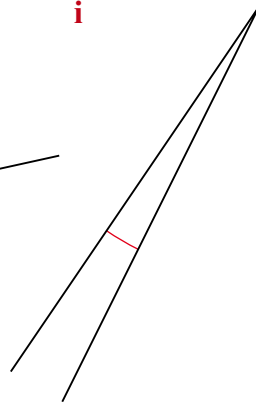
j

k

l

8 Here are some angles marked with letters.

What can you say about the value of *a* + *b*?

What can you say about the value of *c* + *d*?
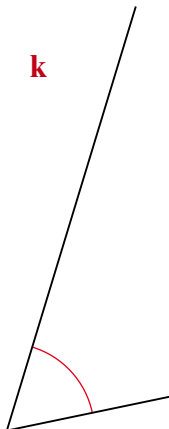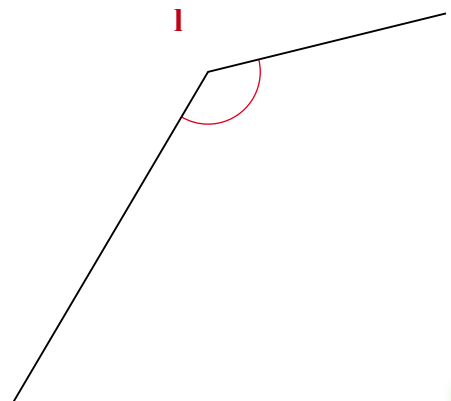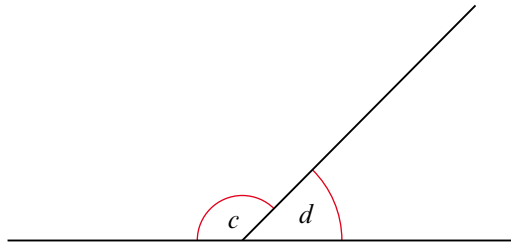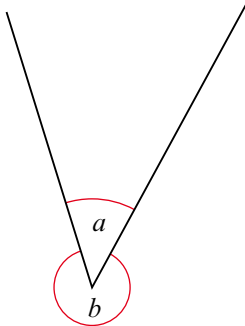
explanation 3a   explanation 3b   explanation 3c

9 Work out the size of each angle marked with a letter.
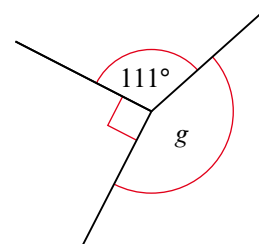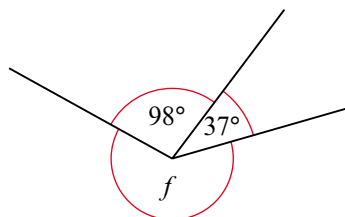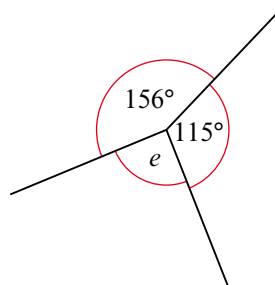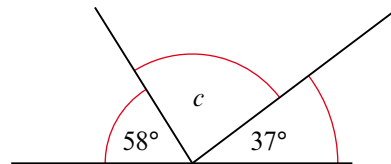
explanation 4

10 Work out the size of each angle marked with a letter.

explanation 5

11 Work out the angles marked with letters.

explanation 6

12 Work out the angles marked with letters.
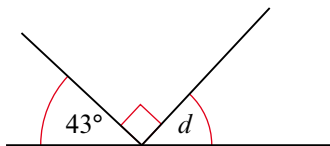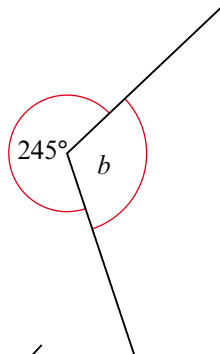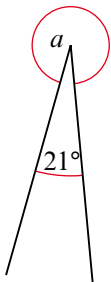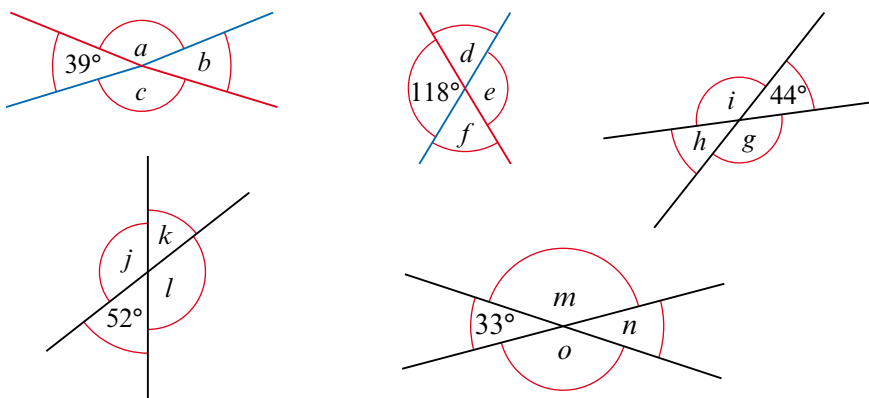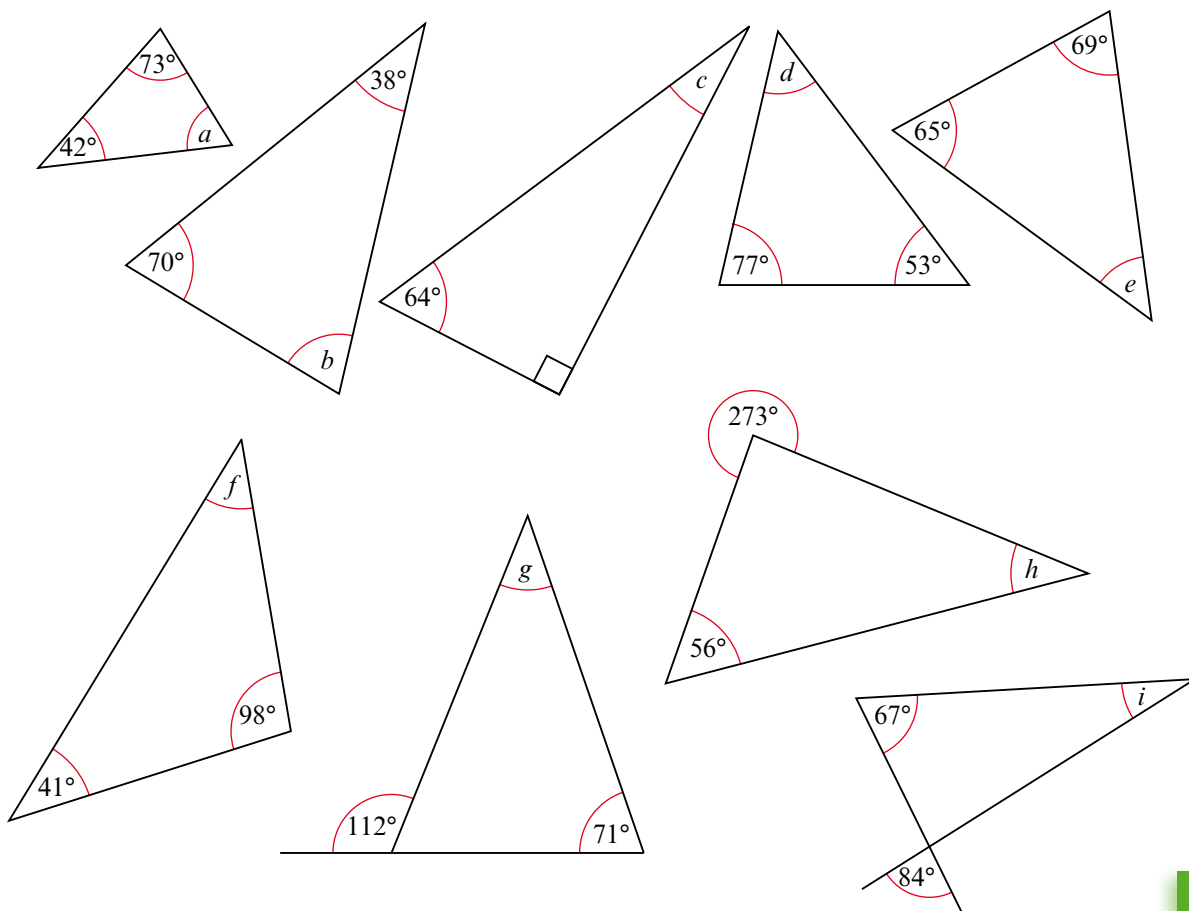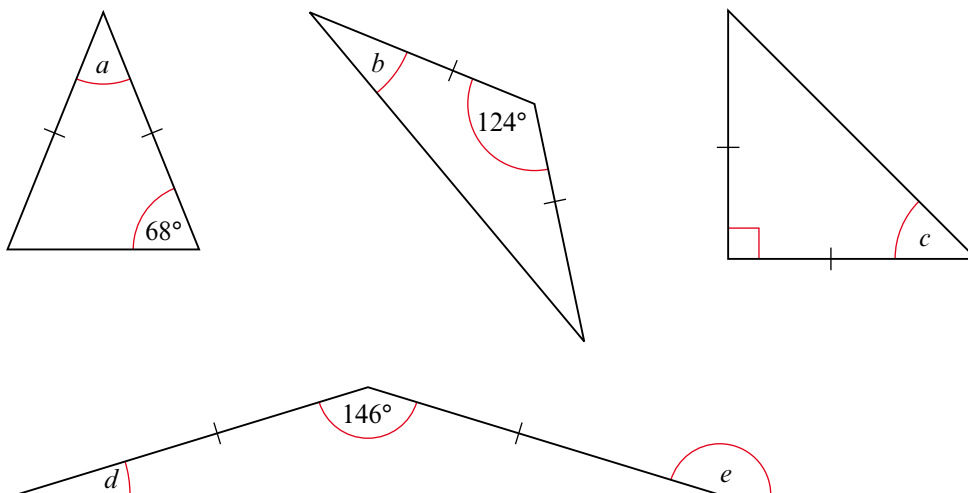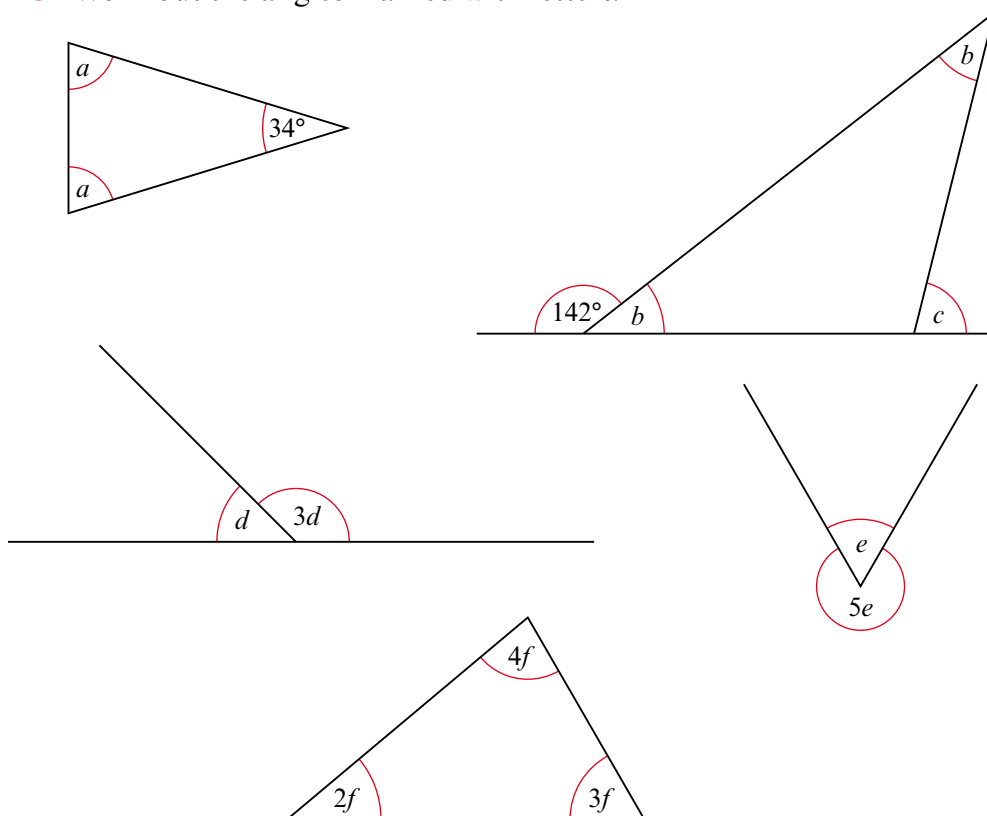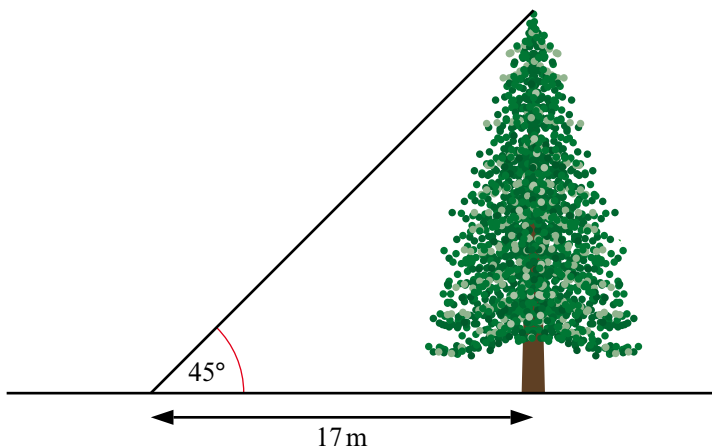
13 Work out the angles marked with letters.

**14** The Earth makes one full turn on its axis every 24 hours.

    a What angle does the Earth turn through in 8 hours?

    b How long does it take for the Earth to turn through a right angle?

15 How high is the tree?
Explain how you know.

45°

17 m

16 a Through what angle does the minute hand of a clock turn in 30 minutes?

    b Through what angle does the hour hand of a clock turn in 30 minutes?

    c What is the obtuse angle between the minute hand and hour hand of a clock at 12:30?
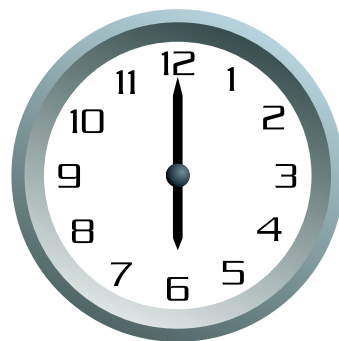
17 Find the value of x and the perimeter of the triangle.
Explain how you obtained your answers.

x

4.8 cm

x x