

Finding angles

Starter

1. (Review of last lesson)

Make x the subject: (a)

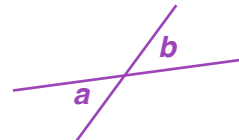
$$a(x + c) = x - 7$$

(b) $y = \frac{x(4 + y)}{a + x}$

2. (Review of previous material) Add a short phrase to complete each angle fact.

- (a) Angles on a straight line _____.
- (b) Angles at a point _____.
- (c) Vertically opposite angles _____.
- (d) Angles in a triangle _____.
- (e) Equilateral triangles _____.
- (f) Isosceles triangle _____.
- (g) Angles in a quadrilateral _____.

Vertically opposite angles

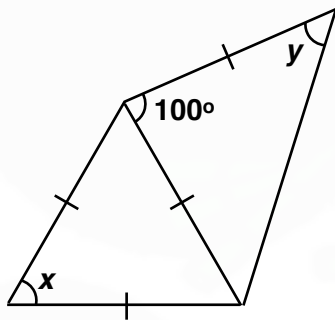


Notes

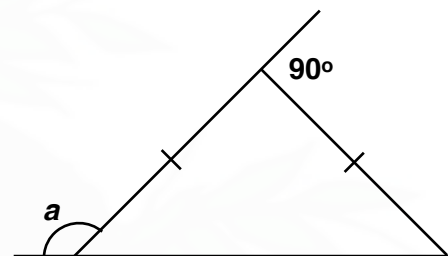
When finding angles, it may be necessary to calculate angles that are not marked.

E.g. 1 Calculate the values of the marked angles:

(a)



(b)



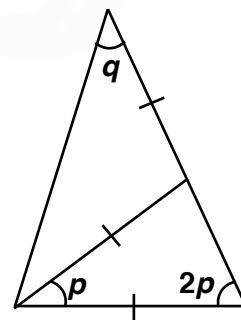
Working:

(a) Angle x is an equilateral triangle so $x = 60^\circ$

Angle y is in an isosceles triangle so $y = \frac{180^\circ - 100^\circ}{2} = 40^\circ$

Some questions may required you to set up and solve a linear equation.

E.g. 2 Calculate the values of p and q .



Video: [Angles in a triangle](#)

[Solutions to Starter and E.g.s](#)

Exercise

9-1 class textbook: p62 M3.1 Qu 1-24 odd Draw all diagrams
A*-G class textbook: p55 M3.1 Qu 1-24 odd Draw all diagrams.
9-1 homework book: p19 M3.1 Qu 1-10 Draw all diagrams
A*-G homework book: p14 M3.1 Qu 1-10 Draw all diagrams

Summary

When finding angles, it may be necessary to calculate angles that are not marked.
Some questions may required you to set up and solve a linear equation.

