# Cosine Rule – Missing Sides

MATHS·SCHOOL

maths-school.co.uk

Name:

Calculate the value of $x$ in these triangles (correct to 2 decimal places) :

**Diagrams not drawn to scale**

a)
8cm
$x$
30°
10cm

b)
7cm 80° 12cm
$x$

c)
12cm
$x$
40°
11cm

d)
$x$ 8m
70°
6m

e)
9cm
$x$
30°
11cm

f)
$x$ 18m
40°
22m

g)
10cm
32°
$x$
12cm

h)
9.5cm
$x$
35°
12cm

i)
9cm
80°
$x$

j)
25° 12cm
$x$

k)
$x$
12cm
32°

l)
9cm
$x$
78°
6cm    5cm
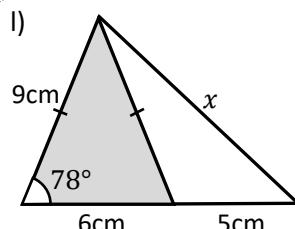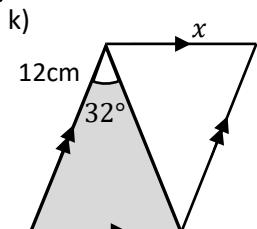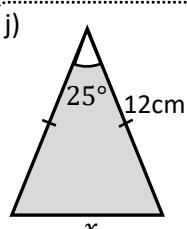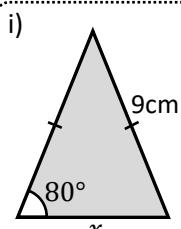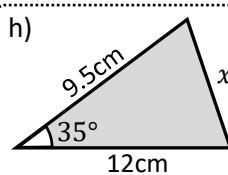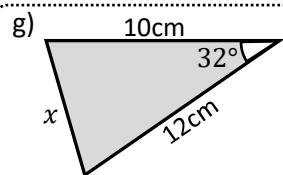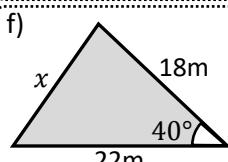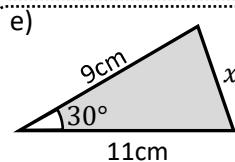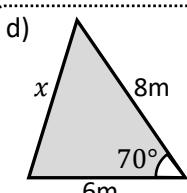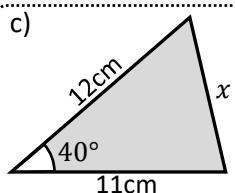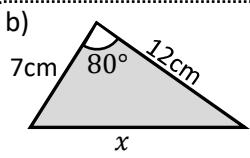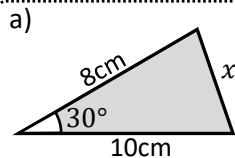
**Exam question:**

Triangle ABC is an isosceles triangle.
Calculate the length of AC ($x$) to 2 decimal places

A    4.5m    B
32°
$x$
C
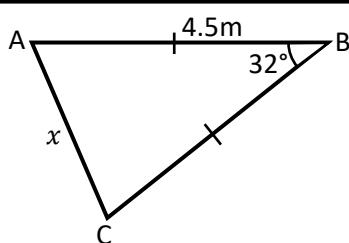
**139b**

MATHS·SCHOOL

maths-school.co.uk

Calculate the value of $x$ in these triangles (correct to 2 decimal places) :

**Diagrams not drawn to scale**

a)
9cm
5cm
$x°$
11cm

b)
7cm
$x°$
12cm
14cm

c)
13cm
6cm
$x°$
10cm

d)
5m
8m
$x°$
6m

e)
9cm
3cm
$x°$
11cm

f)
16m
18m
$x°$
22m

g)
10cm
$x°$
9cm
15cm

h)
9.5cm
9cm
$x°$
12cm

i)
8cm
$x°$
4cm

j)
$x°$
14cm
9cm

k)
5cm
12cm
$x°$

l)
9cm
14cm
$x°$
6cm
5cm
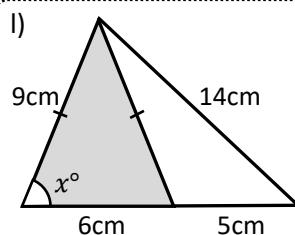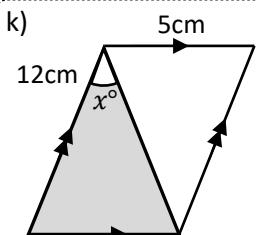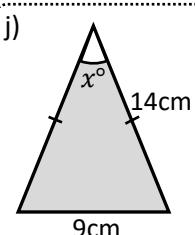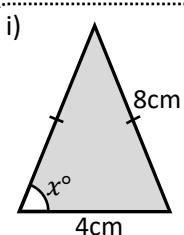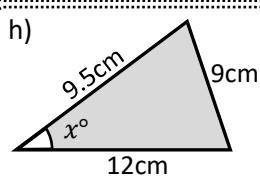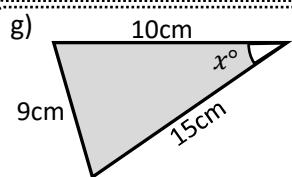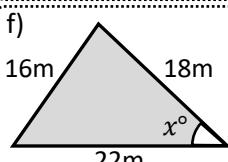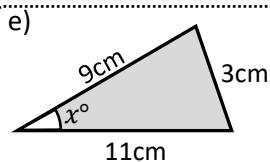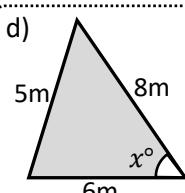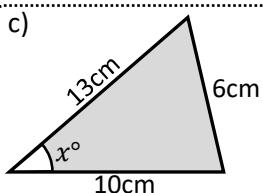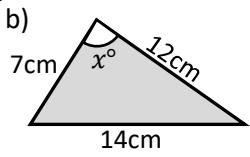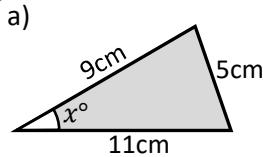
**Exam question:**

Triangle ABC is an isosceles triangle.
Calculate the angle of ABC ($x$) to 1 decimal place

A
6.4m
B
$x°$
3.4m
C