HELLO!

Today we are going to revise angles

Arithmetic Warm Up

1. $(9 \times 3) + 84 =$ ⬚

2. $57 + 94 +$ ⬚ $= 360$

Revision on geometry – angles
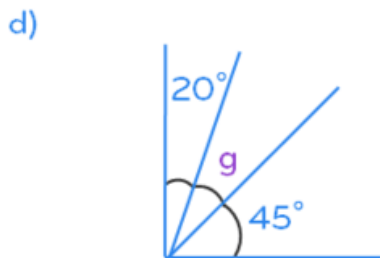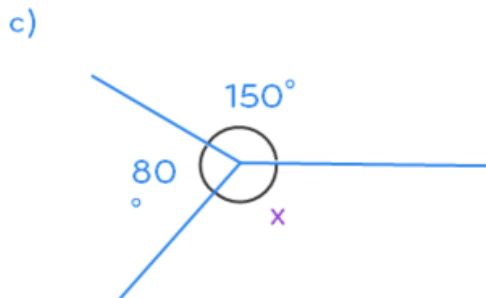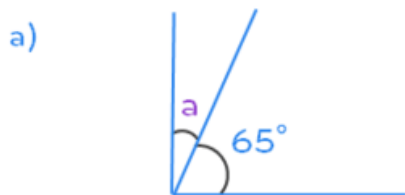
Now we are going to revise:

 angles that meet at right angles, straight lines or around a point

 finding unknown angles

Revision: Angles meeting at right angles, straight lines and around a point
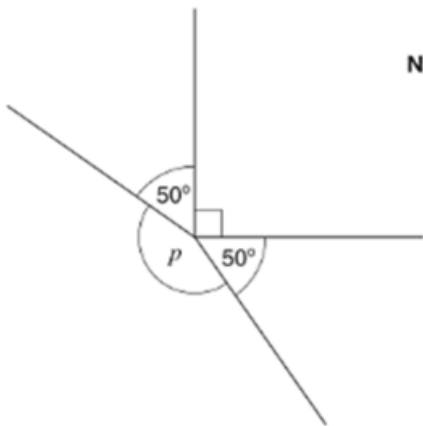
1. Find the missing angles.

a)

a
65°

b)

m
25°

c)

150°
80°
x

d)

20°
g
45°

Complete

Not to scale

50°

50°

P

Calculate the size of angle p in the diagram.

Do **not** use a protractor (angle measurer).
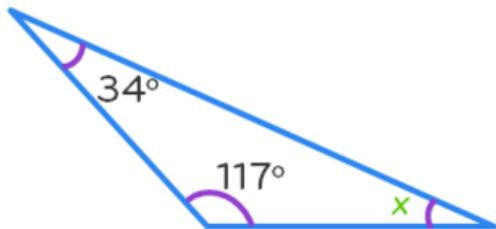
What do you notice?
What do you know?
Can you show your working out?
How could you extend the question?

You are revising angles (Meeting Y6 expectations)

Revision: Interior angles of shapes

Angles in a triangle

The sum of all interior angles of a triangle = 180 °

So angle x = 180° – (117° + 34°)
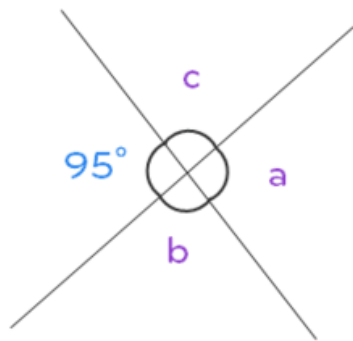

34°

117°
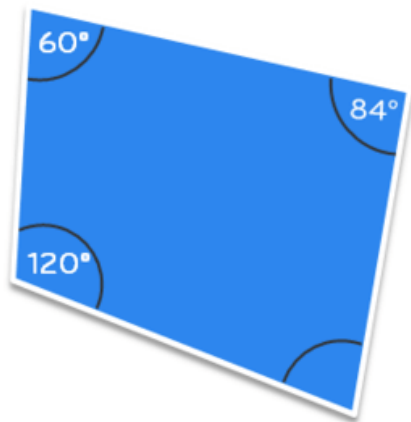
x

X =

Alternate angles

On parallel lines, alternate (z) angles are equal

c

95°

a

b

Angle a is vertically opposite a 95° angle. So, angle a =
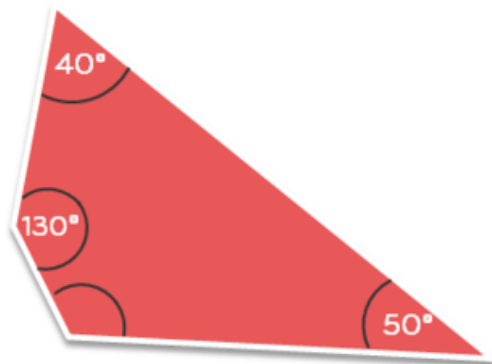
Revision: Interior angles of shapes

1.

60°
84°
120°

2.

40°
130°
50°

a) Total interior angles =

b) Missing angle =

a) Total interior angles =

b) Missing angle =

THIRD SPACE LEARNING

Complete

Calculate the size of angles **a** and **b** in this diagram.
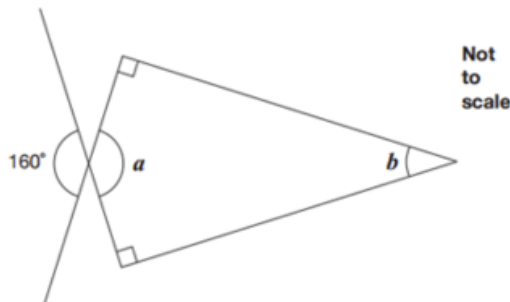
Not to scale

160°   a   b

What do you notice?
What do you know?
Can you show your working out?
How could you extend the question?

a = [   ]°

b = [   ]°

What do you notice about the angle opposite angle a?

You are revising angles (Meeting Y6 expectations)

Question 3

✏ Complete

The diagram shows three **identical** isosceles triangles.

Not to scale

r

t

$40°$

Isosceles triangle = two angles are the same size.

5cm   5cm

3cm
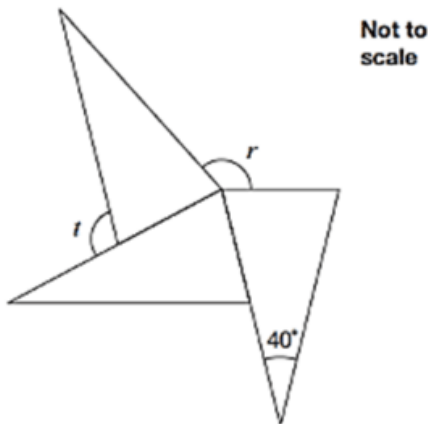
What are the sizes of angles r and t?

Let's review:

🎧 Can calculate missing angles that meet at a right angle, on a straight line or around a point

🎧 Can find missing angles in triangles

Draw a circle around the smiley face to show how you feel about what we've just been doing.

THIRD SPACE
LEARNING

✎ Complete

Jamie draws a triangle.

He says,

'Two of the three angles in my triangle are obtuse'.

Explain why Jamie **cannot** be correct.

What do you <u>notice</u>?
What do you <u>know</u>?
Can you show your <u>working out</u>?
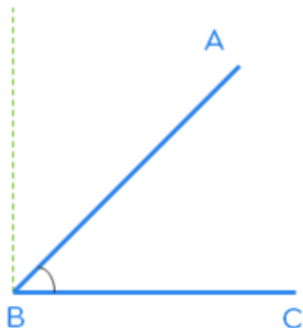How could you <u>extend</u> the question?

Acute, obtuse and reflex angles

Here are some other types of angles. Complete the sentences.

Acute angle:
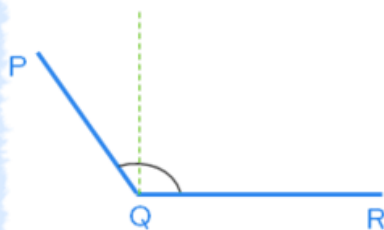
measures [   ]

than a right angle.

Obtuse angle:

measures [   ]

than a right angle

but [   ] than
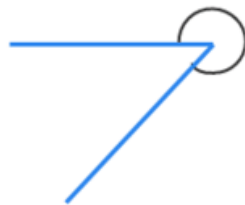
a straight angle.

Reflex angle:

measures [   ]

than a straight angle

but [   ] than

a whole turn.

Missing angles

Find the missing angle.

The straight angle is divided into two angles.

You can use letters to represent the angles.
Let p stand for the missing angle.

p   30°

To find a missing angle in a straight angle, you can subtract
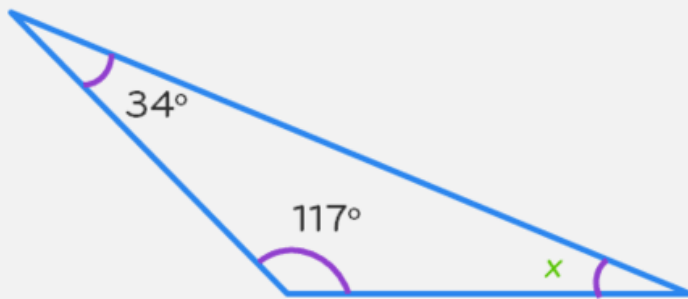the given angle from 180. So, you know:

p = 180 − 30

[   ] = 180 − 30   So, the missing angle measures [   ]

Angles in a triangle

1. Find the missing angle, x, in this triangle.

$34°$

$117°$

x

The sum of all the interior angles of a triangle = [ ]

Sum of two given angles = $117°$ + $34°$

= [ ]

So angle $x = 180°$ − [ ]

= [ ]

Angles in a quadrilateral

ABCD is a quadrilateral made up of two triangles; Δ ABC and Δ ADC, joined together.
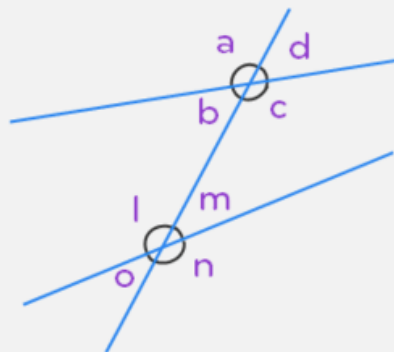

We know the angles in Δ ABC must add up to ☐ and the

angles in Δ ADC must add up to ☐

What must the angles in a quadrilateral add up to? ☐

Alternate angles

Alternate angles are two angles that are not next to each other but are on opposite sides of a line that crosses two other lines.

The lines are not parallel. So, the alternate angles are not necessarily the same size.

Angles a and n are on opposite sides. They are not next to each other. Angles a and n are alternate angles.

Write another pair of alternate angles.