Warm your brains up thinking about the following questions:

Warm Up Challenge

1. Select the correct words from the box.

| right | reflex | acute | obtuse |

a) An angle less than 90° is ⬚

b) An angle equal to 90° is ⬚

c) An angle more than 90° and less than 180° is ⬚

d) An angle greater than 180° and less than 360° is ⬚

2. a) Angles at a point add up to ⬚
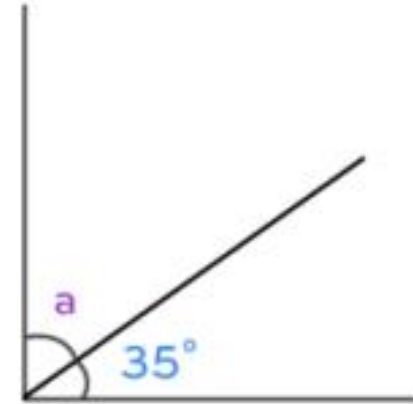
b) Angles on a straight line add up to ⬚

Missing angles

Find the missing angle.

The right angle is divided into two angles.

You can use letters to represent the angles.

Let a stand for the missing angle.

a   35°

To find a missing angle in a right angle, you can subtract the given angle from 90. So, you know:
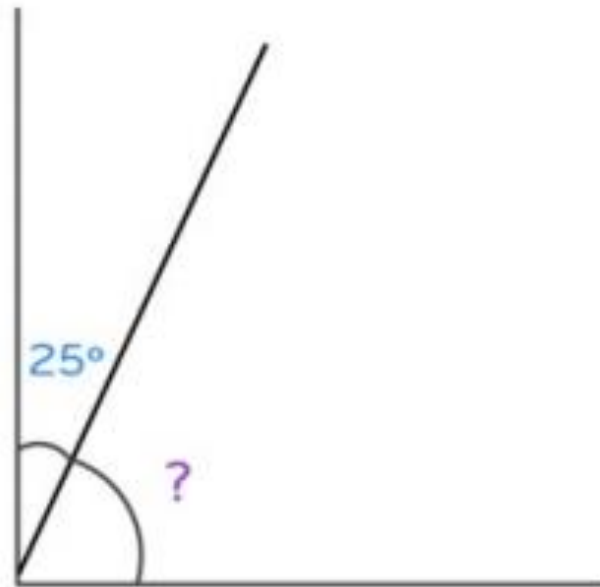
a   = 90 – 35

[ ]   = 90 – 35   So, the missing angle measures   [ ]

Missing angles

Find the missing angle.

Remember,
a right angle
is 90°

25°

?

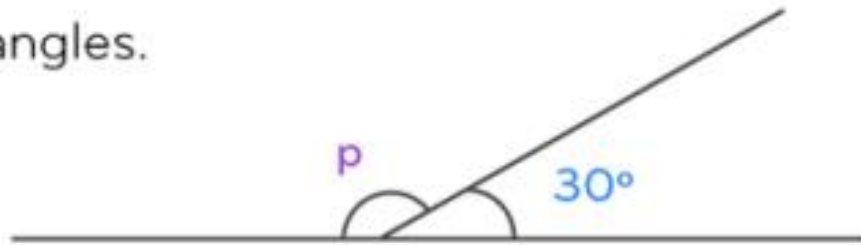# Missing angles

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:

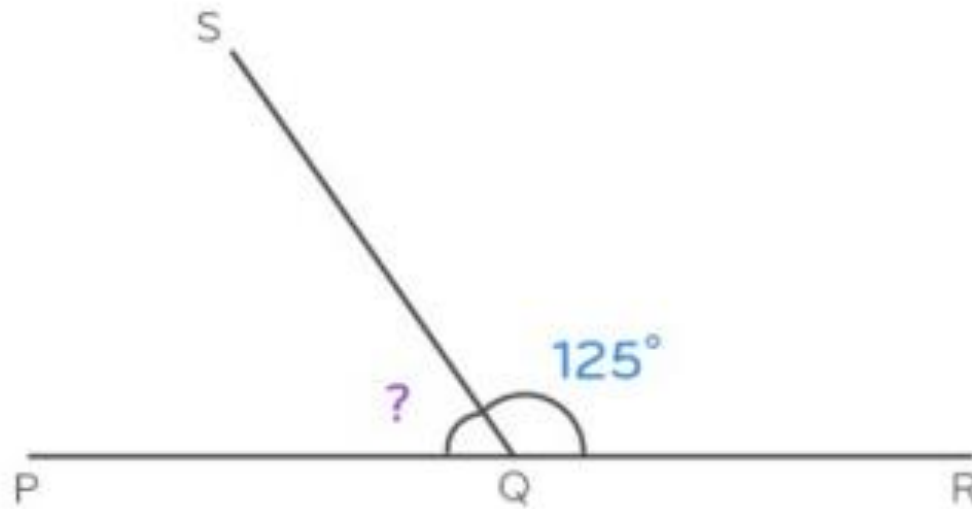p = 180 – 30

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

Missing angles

Find the missing angle.

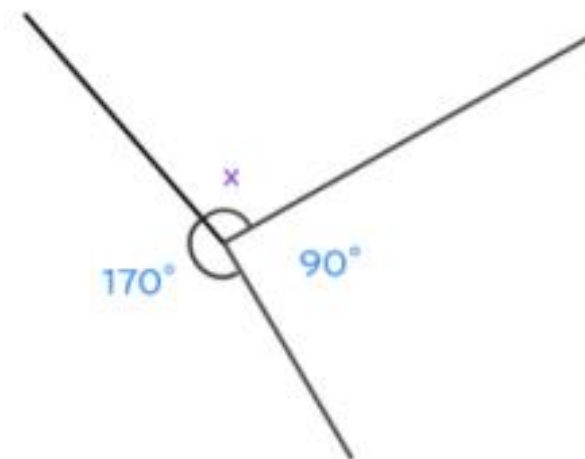Remember, a straight angle is 180°

Missing angles

Find the missing angle.

Angles around a point add up to 360° .

You can use letters to represent the angles.

Let x stand for the missing angle.

170°   x   90°

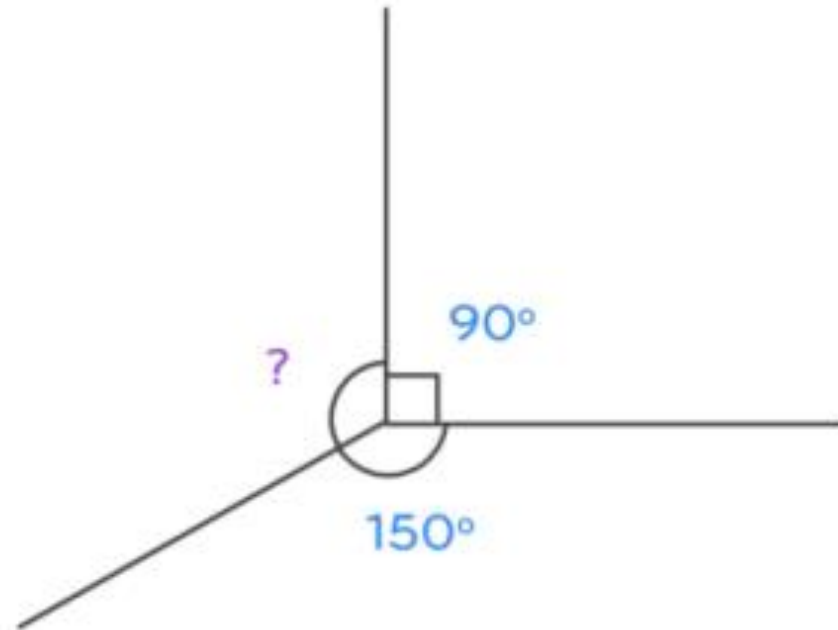To find the missing angle add the given angles and subtract the total from 360. So, you know:

$$x = 360 - (170 + 90)$$

[   ] = 360 – [   ]   So, the missing angle measures [   ]
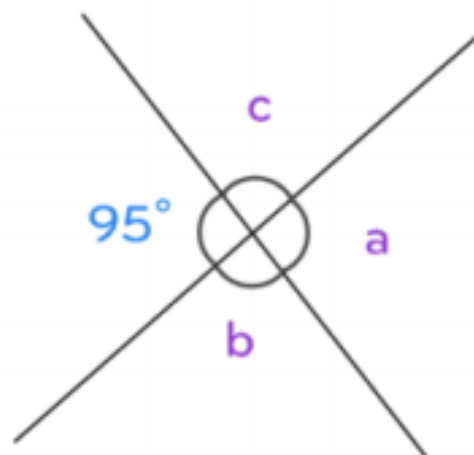
Missing angles

Find the missing angle.

Remember, angles around a point add up to 360°.

? 90° 150°

Missing angles

Vertically opposite angles are formed when two straight lines cross.

You can also use vertically opposite angles to find missing angles.

95°   c   a   b

Vertically opposite angles are always equal.

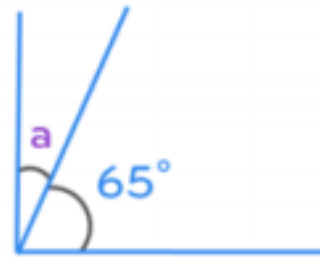Angle a is vertically opposite a 95°   angle. So, angle a =

Angle b = 180 – 95, so angle b =

Angle c is vertically opposite angle b. So, angle c =
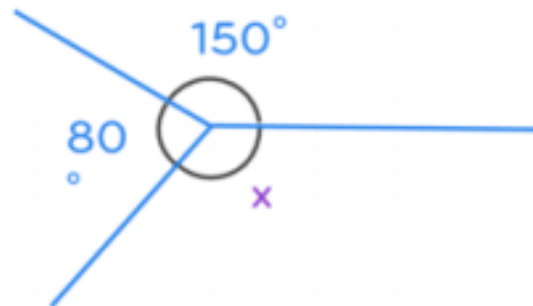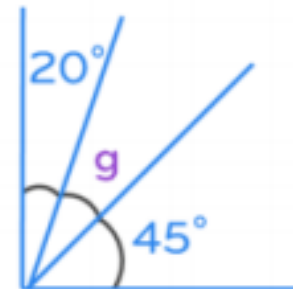
Practice time

1. Find the missing angles.

a)

a

65°

b)

m

25°

c)

150°

80°

x

d)

20°

g

45°
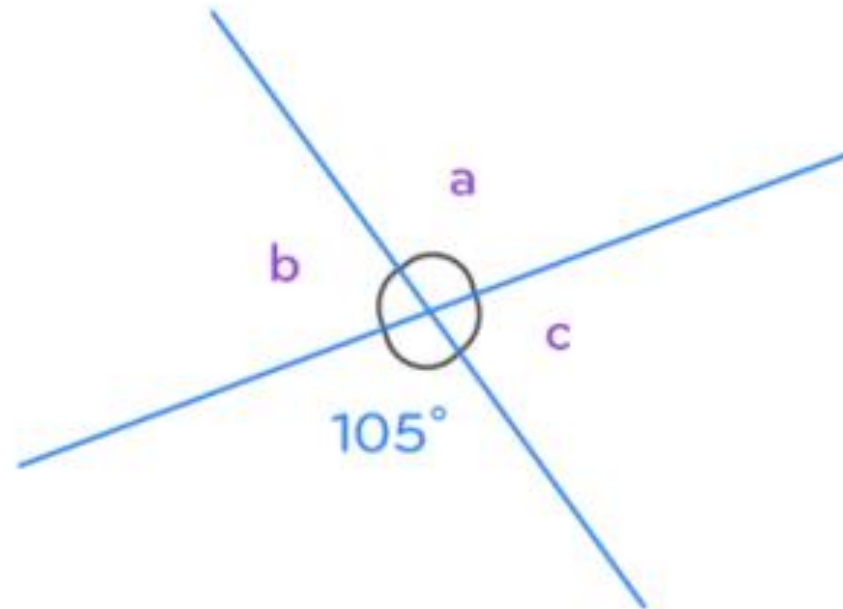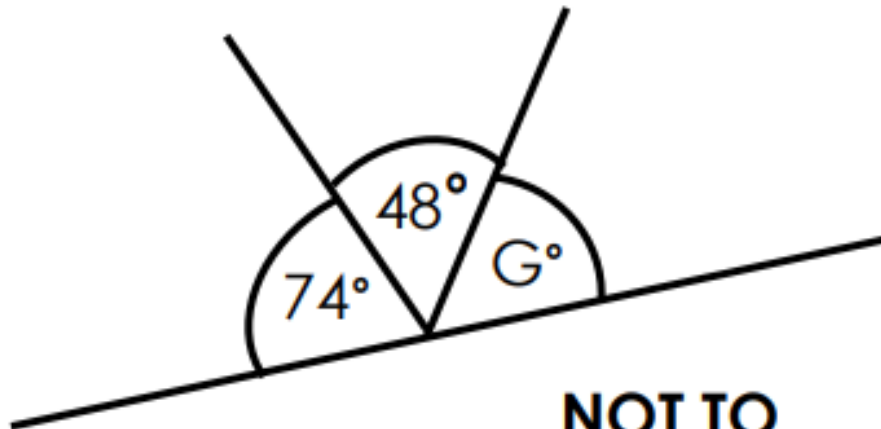
Practice time

2.   Find the missing angles.

Practice time

3. Maya measures three angles around a point. If one angle measures 45° and one angle measures 90° , what is the measure of the third angle?

4. If a right angle is divided into three angles of equal size, what is the size of each angle?

Explain the mistakes

48°

74°

G°

NOT TO SCALE

Calculate the size of angle G

Mistake 1

$360° - (74° + 48°)$
$= 238°$

Mistake 2

$74° + 48° = 122°$

Mistake 3

$74° + 48° = 122°$
$180° - 122° = 68°$