**Algebra and Shape GREEN**

1. The perimeter of this rectangle is 31 cm.

Find the value of x.

x = \_\_\_\_\_\_\_\_\_ cm

2. The perimeter of this shape is 29 cm.

 What is x?

x = \_\_\_\_\_\_\_\_\_ cm

3. A rectangle has the lengths shown

Find the perimeter of the rectangle.

Perimeter = \_\_\_\_\_\_\_\_\_ cm

4. The area of the right-angled triangle is equal to the area of the rectangle.

Work out the value of x.

x = \_\_\_\_\_\_\_\_\_ cm

5. The diagram shows a right-angled triangle.

 Calculate the value of x.

x = \_\_\_\_\_\_\_\_\_ º

6. The area of this compound shape is 59 cm².

a) Find the value of x.

x = \_\_\_\_\_\_\_\_\_ cm

b) Hence calculate the perimeter of the shape.

\_\_\_\_\_\_\_\_\_ cm

**Algebra and Shape AMBER**

1. The perimeter of this rectangle is 31 cm.

Find the value of x.

Perimeter = total distance around the edge of the shape

x = \_\_\_\_\_\_\_\_\_ cm

2. The perimeter of this shape is 29 cm.

 What is x?

x = \_\_\_\_\_\_\_\_\_ cm

3. A rectangle has the lengths shown

Find the perimeter of the rectangle.

Use the fact that opposite sides of a rectangle are equal

Perimeter = \_\_\_\_\_\_\_\_\_ cm

4. The area of the right-angled triangle is equal to the area of the rectangle.

Work out the value of x.

Start by calculating the area of the triangle

x = \_\_\_\_\_\_\_\_\_ cm

5. The diagram shows a right-angled triangle.

 Calculate the value of x.

What do angles in a triangle sum to?

x = \_\_\_\_\_\_\_\_\_ º

6. The area of this compound shape is 59 cm².

a) Find the value of x.

Split the shape into two rectangles!

x = \_\_\_\_\_\_\_\_\_ cm

b) Hence calculate the perimeter of the shape.

\_\_\_\_\_\_\_\_\_ cm

**Algebra and Shape RED**

1. The perimeter of this rectangle is 31 cm.

Find the value of x.

Perimeter = total distance around the edge of the shape

 3x – 2 + 2x + 3x – 2 + 2x = 31

x = \_\_\_\_\_\_\_\_\_ cm

2. The perimeter of this shape is 29 cm.

 What is x?

 x – 2 + 2x + x + 3 = 29

x = \_\_\_\_\_\_\_\_\_ cm

3. A rectangle has the lengths shown

Find the perimeter of the rectangle.

Use the fact that opposite sides of a rectangle are equal

 5y – 1 = 2y + 8

Perimeter = \_\_\_\_\_\_\_\_\_ cm

4. The area of the right-angled triangle is equal to the area of the rectangle.

Work out the value of x.

Start by calculating the area of the triangle

Area = ½ x 15 x 20

x = \_\_\_\_\_\_\_\_\_ cm

5. The diagram shows a right-angled triangle.

 Calculate the value of x.

What do angles in a triangle sum to?

 3x + 16 + 2x + 14 + 90 = \_\_\_\_\_

x = \_\_\_\_\_\_\_\_\_ º

6. The area of this compound shape is 59 cm².

a) Find the value of x.

Split the shape into two rectangles!

x = \_\_\_\_\_\_\_\_\_ cm

b) Hence calculate the perimeter of the shape.

\_\_\_\_\_\_\_\_\_ cm