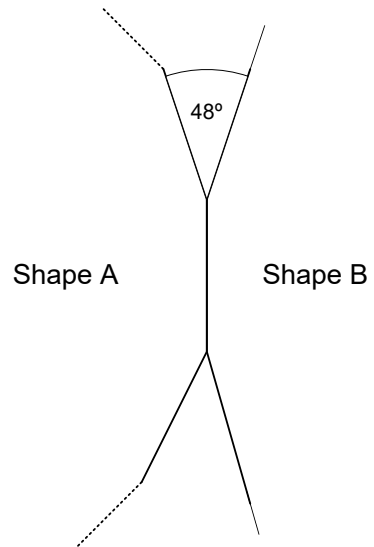**Angles, Shapes and Equations**
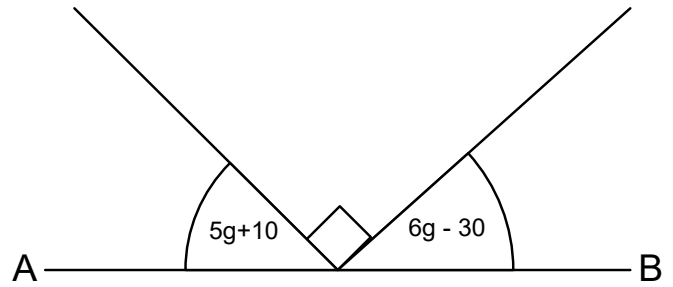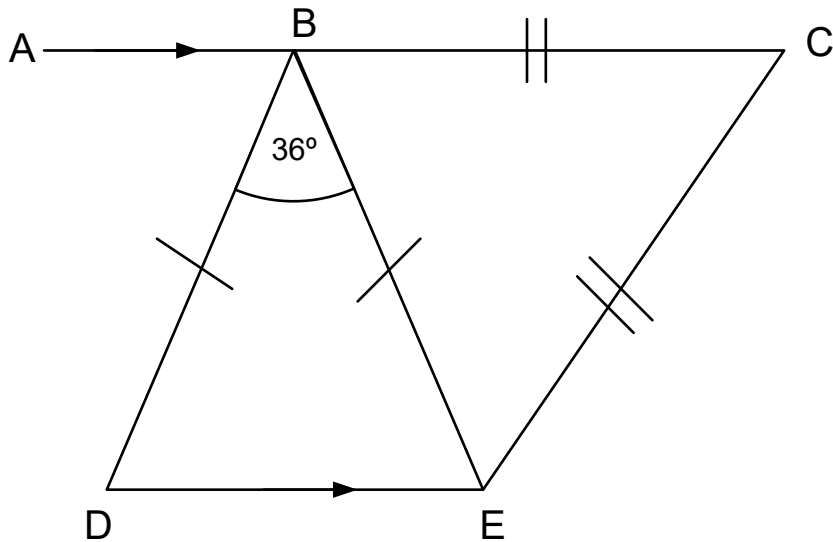
1   The shapes to the right are two regular
       polygons. Shape A is a icosagon with 20
       sides. What is the name of Shape B?
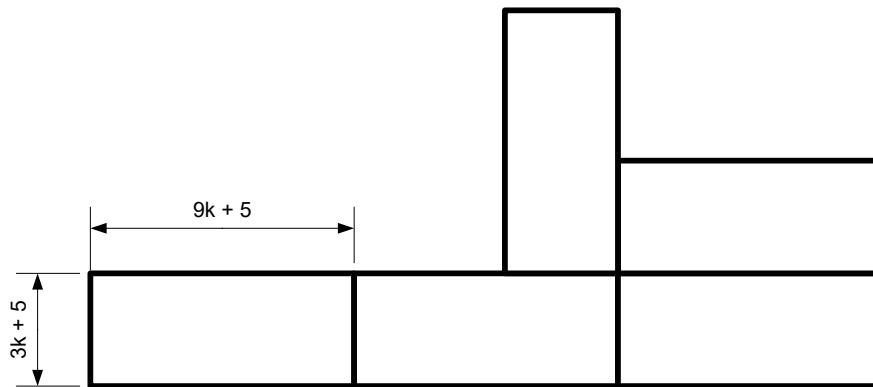
48°

Shape A   Shape B

2   AB is a straight line. Calculate the
       value of g.

5g+10   6g - 30

A ——————————————————— B

3   Find the value of angle BCE. **Give reasons** for your answer.

A ——————→ B ———||——— C

36°

D ————→ E

DO NOT SCALE

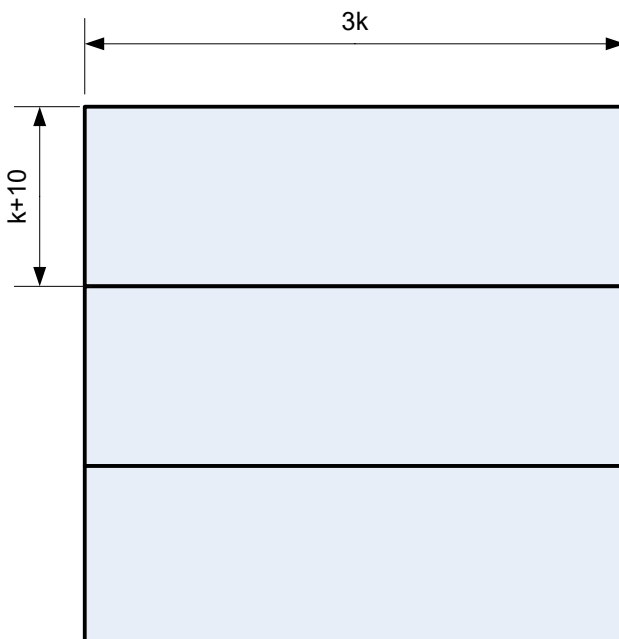4   All the oblongs shown below are identical.

The area of this overall shape is 2625 cm^2.

Calculate the perimeter of the shape.
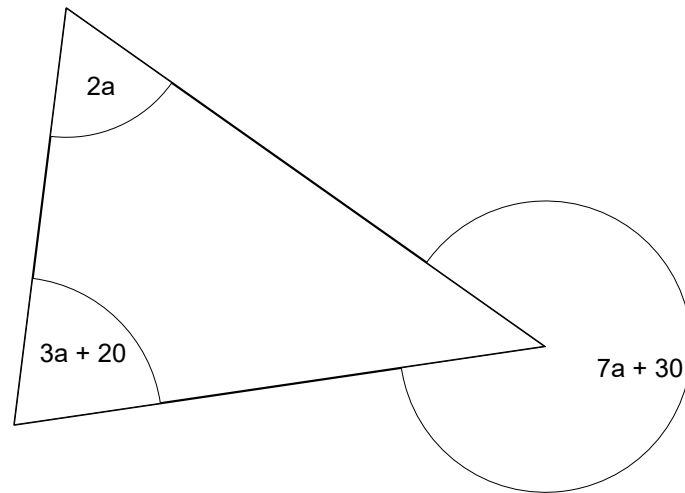

5   The shape below consists of three identical rectangles.
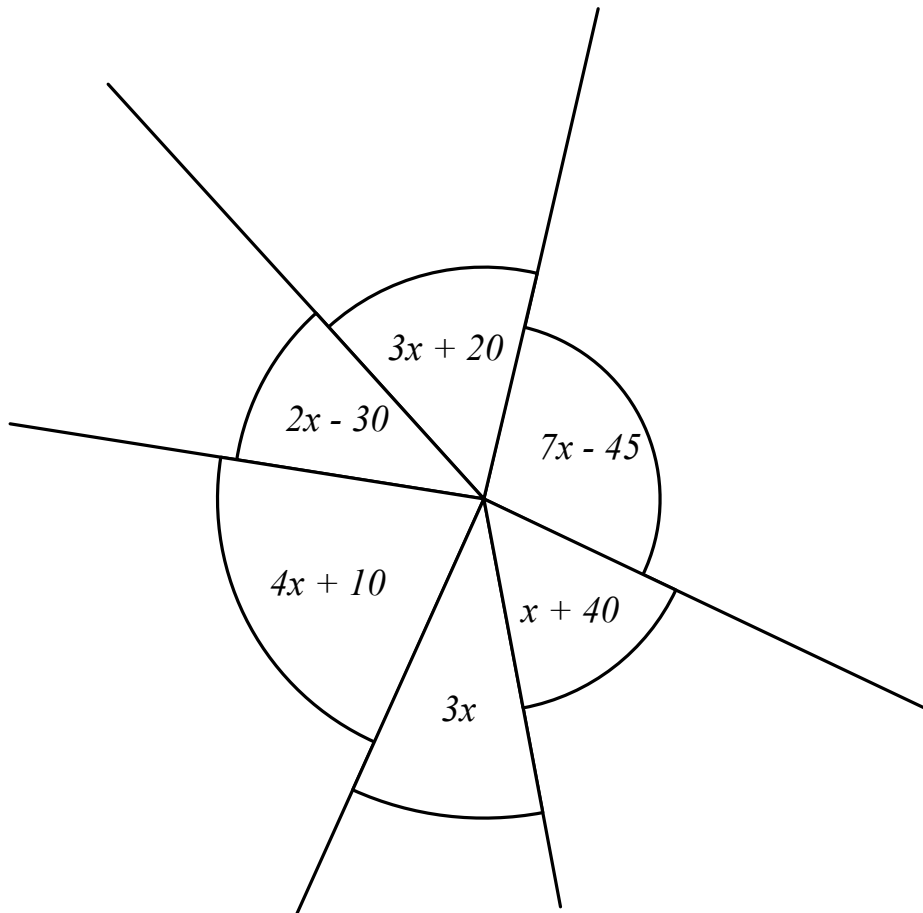
The perimeter of the shape is 280m.

Find the value of k.

6   Calculate the value of a.

2a

3a + 20

7a + 30

7   Find the value of x.

3x + 20

2x - 30

7x - 45

4x + 10

x + 40

3x

DO NOT SCALE

8   Bill bought three times the number of eggs that Freda purchased. Alex purchased 10
        eggs fewer than James. James bought half the number of eggs that Bill and Freda
        bought altogether. If Alex bought two eggs, how many eggs were purchased altogether?

9   The perimeter of the shape below is 440 cm. Find the area of the shape.