### **Angles**

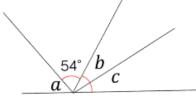
\*\*\*\*\*

Here are two angles.

x y

Use the clues to calculate what the missing angles could be worth.

Angle x is larger than 130° Angle y is a prime number between 40 and 50



- The total of angle b and c are the same as angle α
- Angle a is 9° more than the size of the given angle.
- Angle b is 11° more than angle c

What are the angles worth?

- My age this year is a multiple of 8.
   Next year it will be a multiple of 7.
   How old am I?
- Last year my age was a square number.
  Next year it will be a cube number.
  How old am I?
  How long must I wait until my age is bo

How long must I wait until my age is both a square number and a cube?

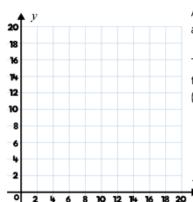


#### **Arithmetic Practice**

93562 x 4 = 378 ÷ 6 = £7704.14 + £947.31 = 97483 - 79942 =



## **Shape Translation**



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\*

\*

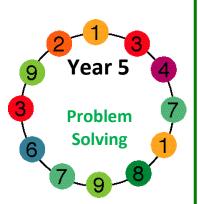
 $\bigstar$ 

 $\bigstar$ 

A rectangle is translated 3 squares up and two squares to the left.

Three of the coordinates of the translated rectangle are: (5, 7) (10, 14) (10, 7).

What are the coordinates of the original rectangle?



# **Challenge linked to Home Learning Project**

Can you design a new island for Australia? Each square represents 4km<sup>2</sup>. The island must include the following features and have the approximate measurements:

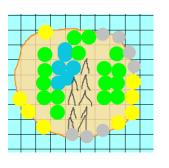
Circular island: 180 km²

Oval lake: 18 km²

3 forests – total area: 63 km² 4 beaches – total area: 32 km²

Mountain range: 37 km²

Rocky coastline – total area: 25 km<sup>2</sup>



\*

 $\stackrel{\frown}{\bigstar}$ 

See the resource on the website.

# Always, Sometimes, Never

Decide which statements are true, sometimes true or false.

- A regular polygon has equal sides but not equal angles.
- A triangle is a regular polygon.
- A rhombus and square are regular polygons.
- The number of angles is the same as the number of sides in any polygon.



Prove it!

### **Games & Online Resources**

https://nrich.maths.org/10334

https://garyhall.org.uk/maths-objectives/150/solve-number-problems-and-practical-problems-that-involve-all-of-the-above