GEOMETRY

BY

EUREKA SECONDARY, IRELAND.

WHO ARE WE?

EMMA

ARWYN

RACHAEL

CIARA

LAUREN

SOPHIE

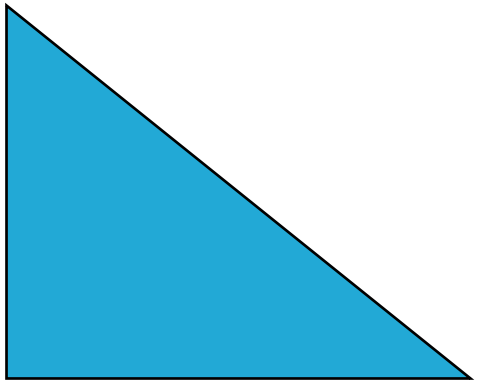
MADELEINE

REBECCA

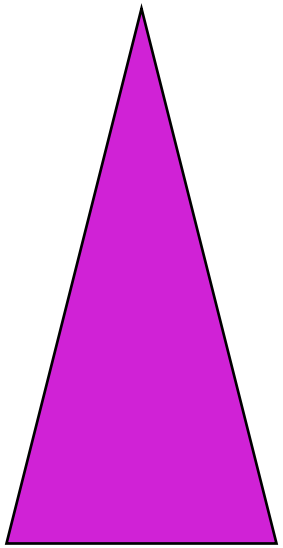
EIMEAR

INTRODUCTION

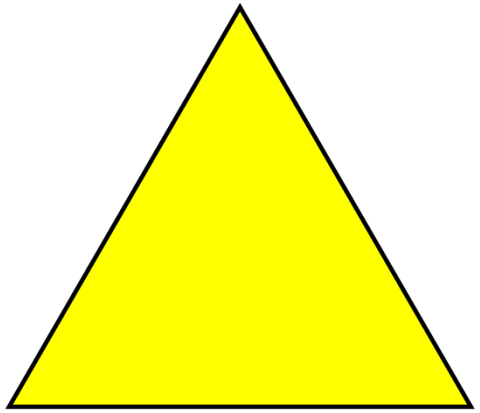
HOW DO WE RECOGNISE SIMILAR TRIANGLES?



Right angle triangle



Isosceles triangle

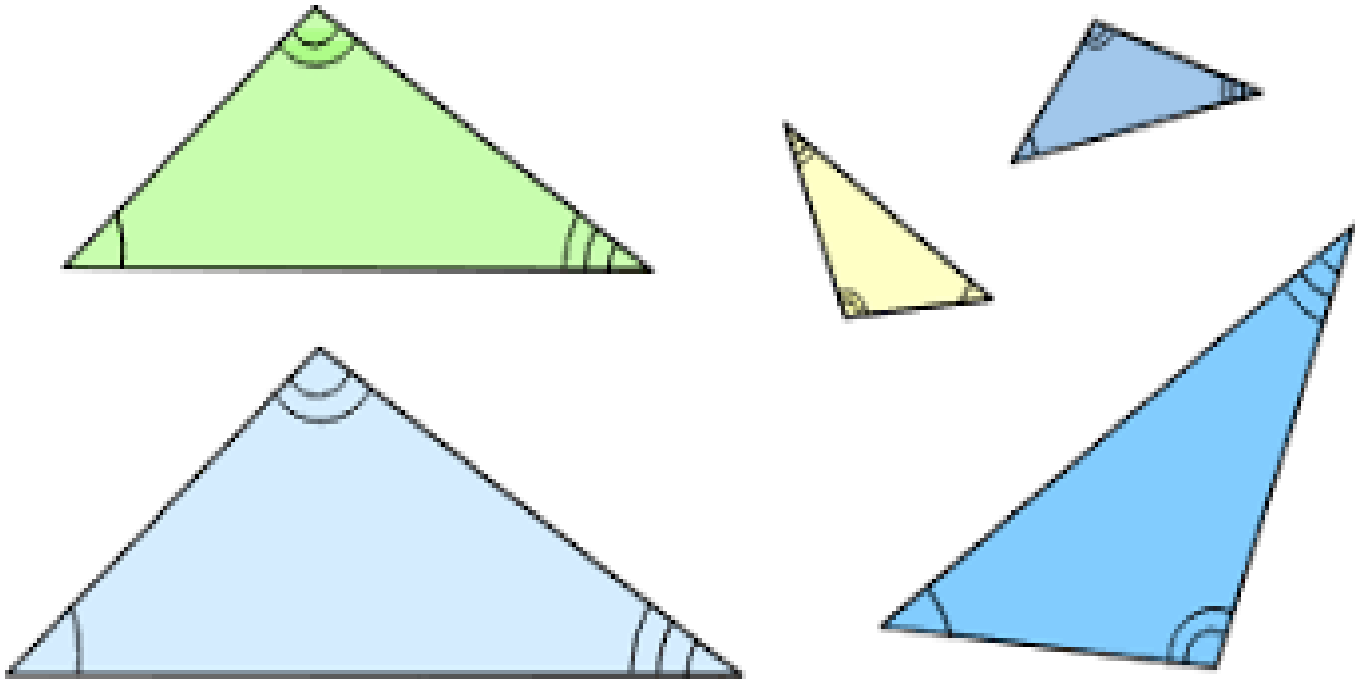


Equilateral triangle

Scalene triangle

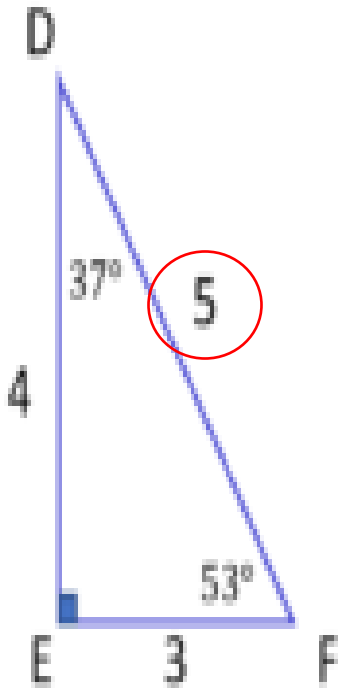
SO…. WHAT ARE SIMILAR TRIANGLES?

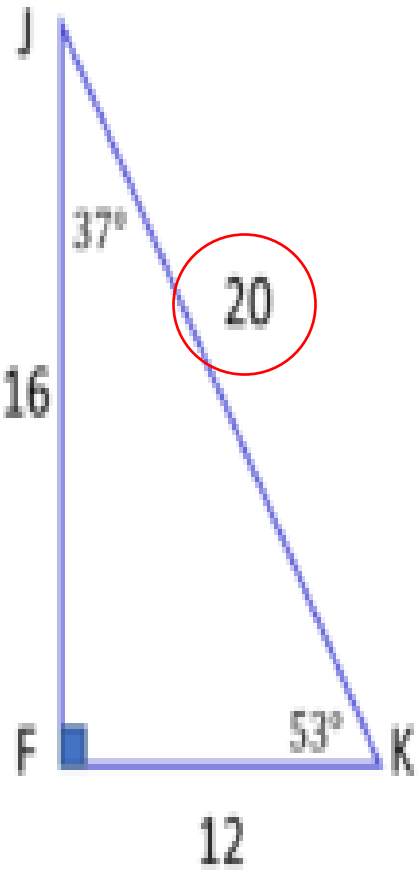
IN SIMILAR OR EQUIANGUALR TRIANGLES, ALL THREE ANGLES IN ONE TRIANGLE HAVE THE SAME MEASURE AS THE CORRESPONDING THREE ANGLES IN THE OTHER TRIANGLE.



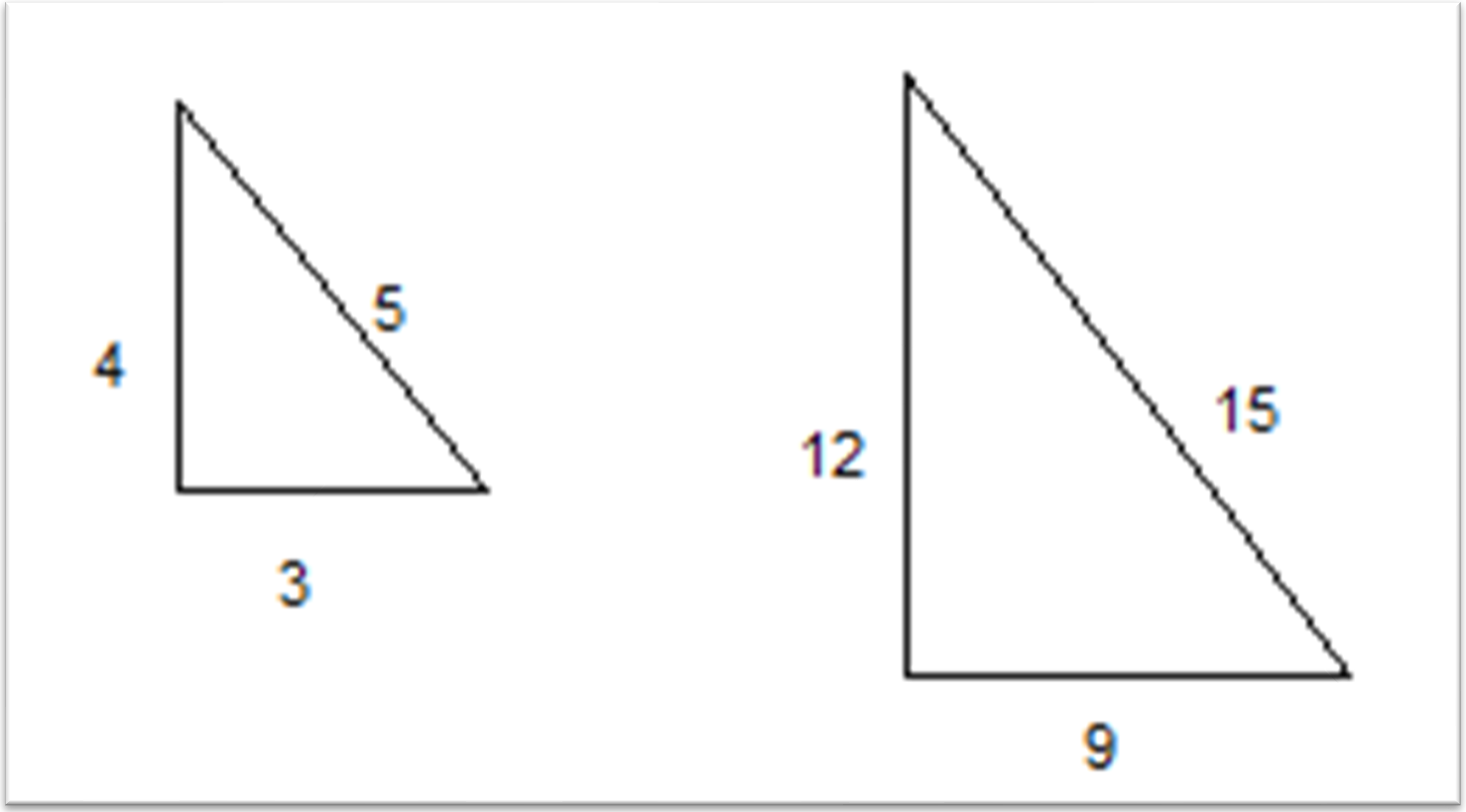
EXAMPLE OF A SIMILAR TRIANGLE

LOOK AT THE CIRCLED DIGITS AND TRY AND SEE IF YOU NOTICE ANY CONNECTION BETWEEN THEM?

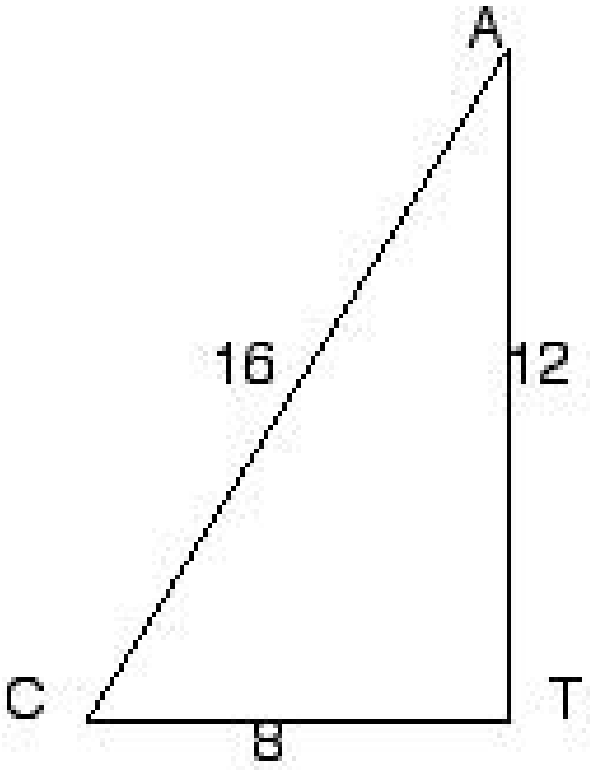


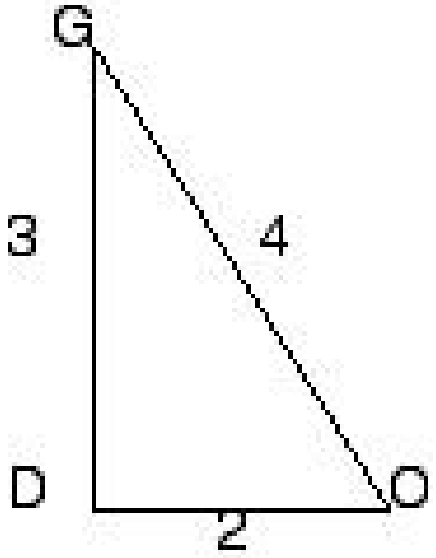


EXAMPLE 1

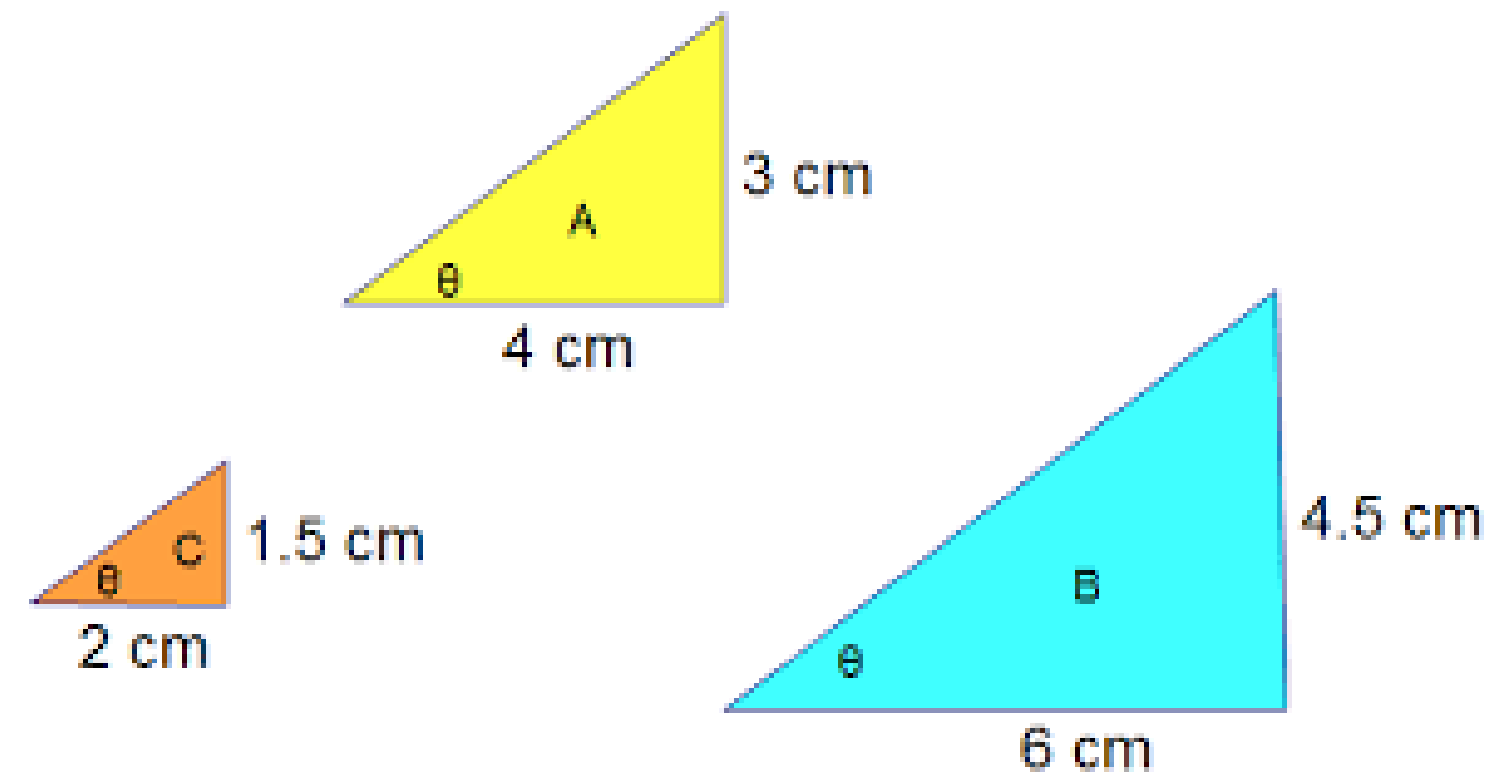


EXAMPLE 2

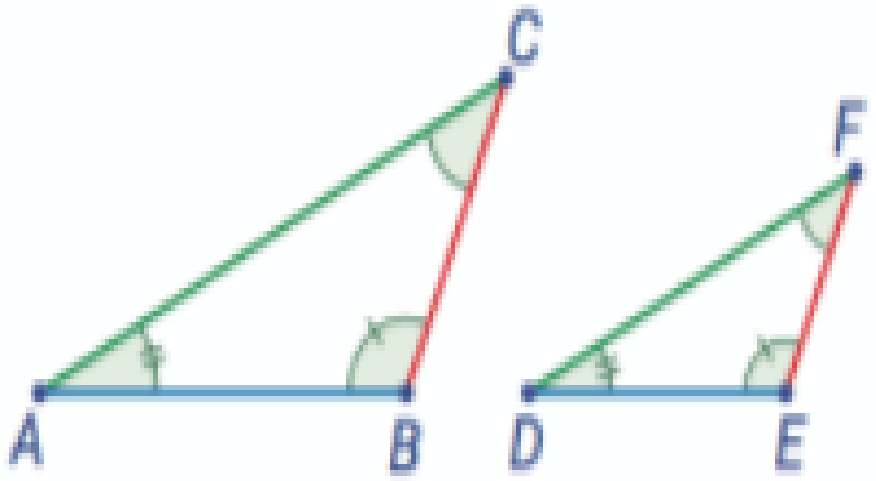




EXAMPLE 3

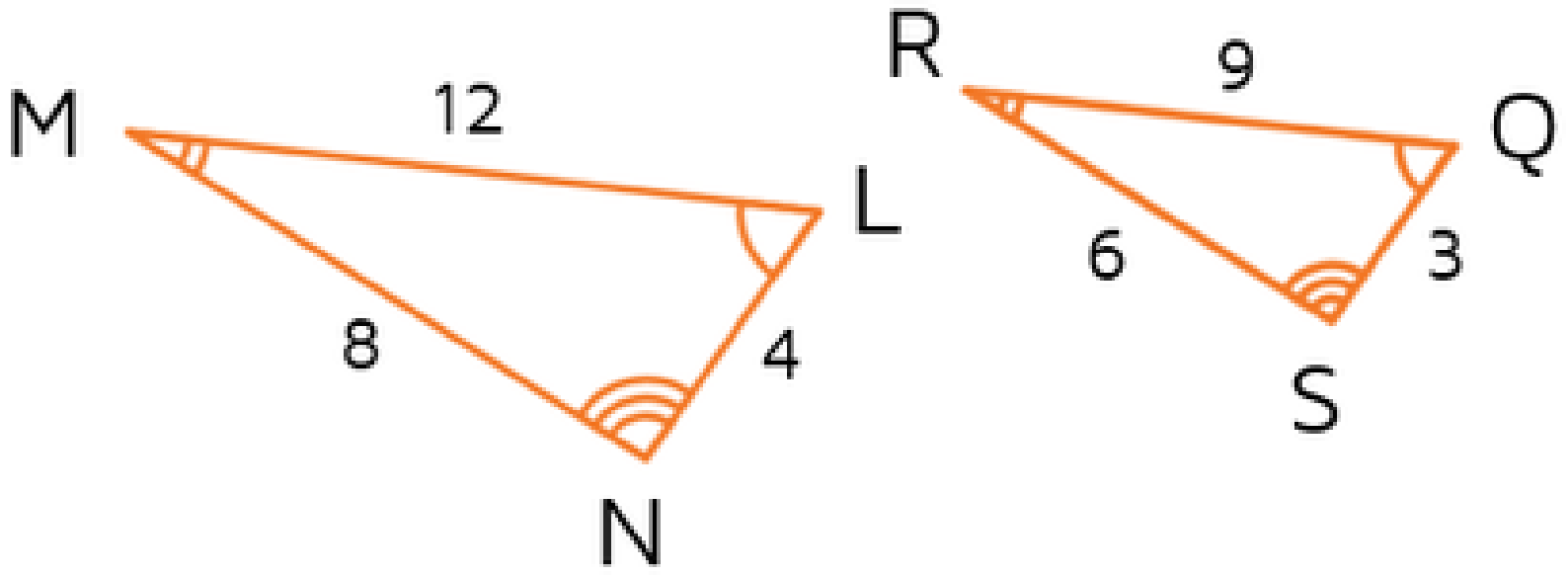


THE RATIO OF THE SIDES

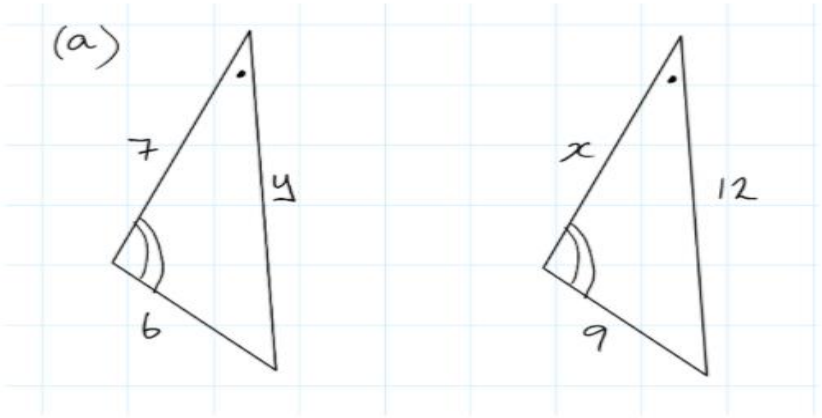


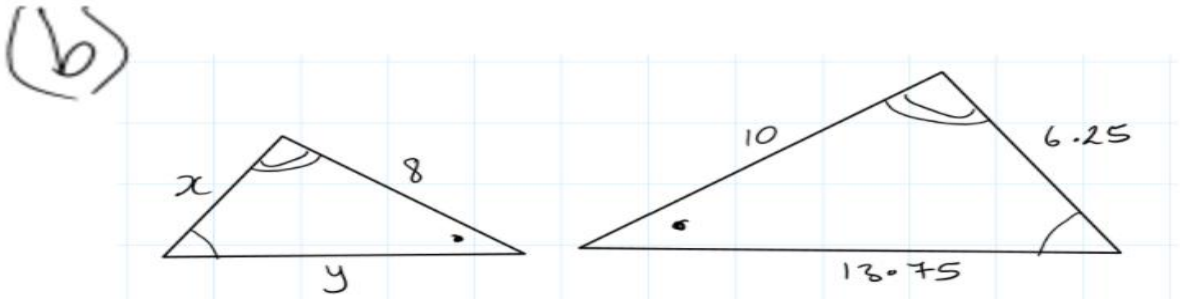
$$\frac{|AB|}{|DE|} = \frac{|AC|}{|DF|} = \frac{|BC|}{|EF|} \quad \text{or} \quad \frac{|DE|}{|AB|} = \frac{|DF|}{|AC|} = \frac{|EF|}{|BC|}$$

EXAMPLE 1



EXAMPLE 2



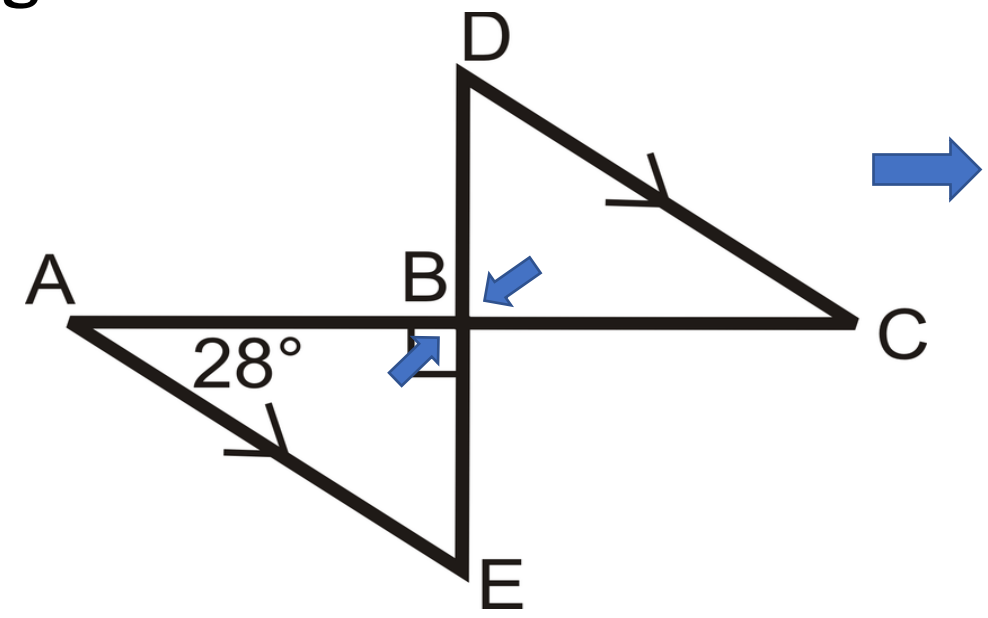


ANGLES IN SIMILAR TRIANGLES

Alternate angles

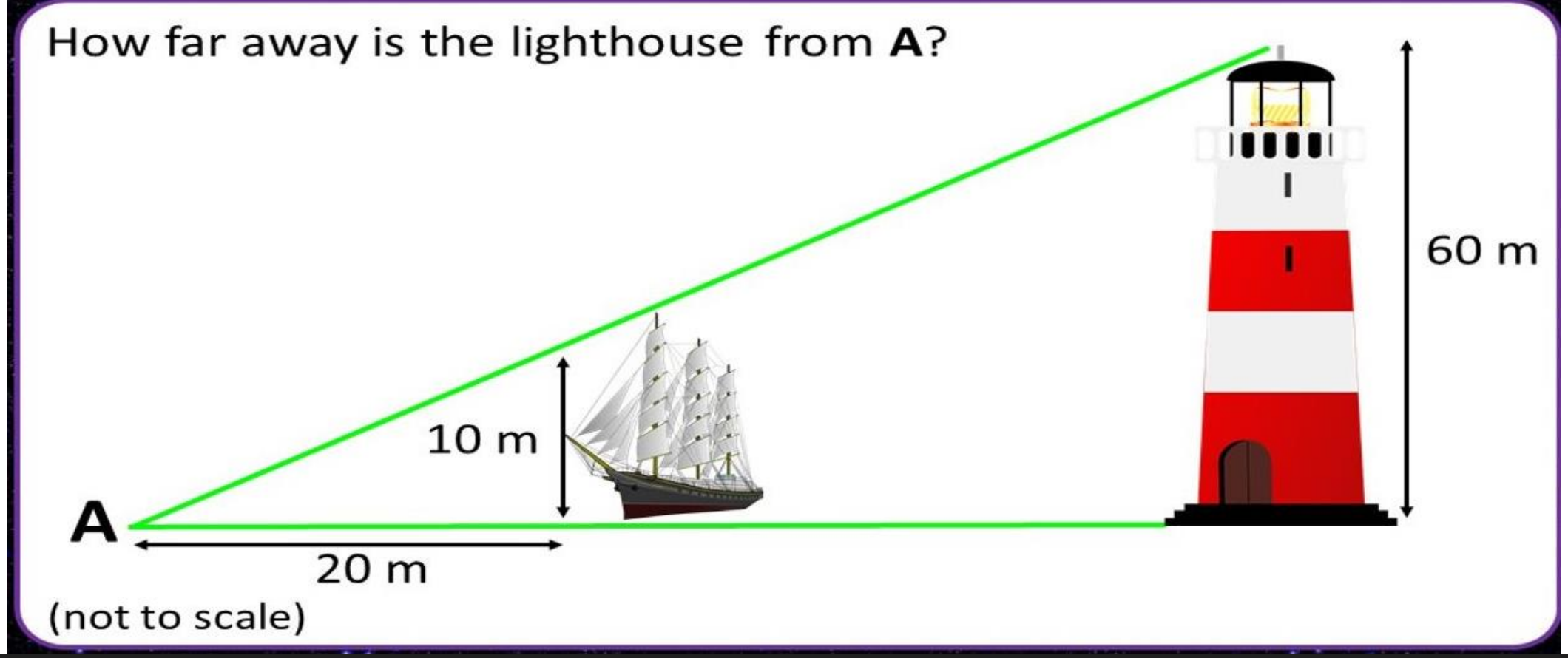
Angle D is alternate

to angle E



Vertically opposite

These angles are vertically opposite



REAL LIFE EXAMPLES

KAHOOT

Kahoot!

SUM UP

WHAT ARE SIMILAR TRIANGLES?

HOW DO WE RECOGNISE SIMILAR TRIANGLES?