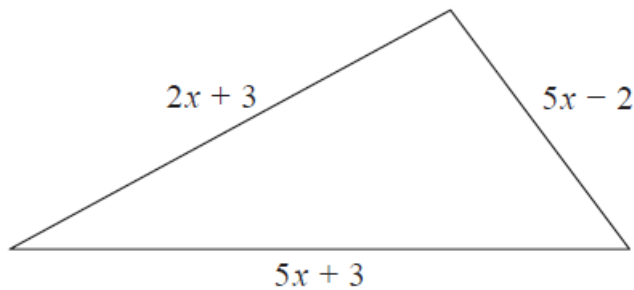


# GCSE Breakfast Fold & Solve – Non Calculator 1

Fold the answers back and work through the questions below!

## Skills

Ali and Beth divide £280 in the ratio 2 : 5  
Work out how much each person gets.



Find an expression for the perimeter

Write  $\frac{3^5 \times 3^4}{3^2}$  as a power of 3

Express 56 as the product of its prime factors.

## Formula

$$\sin(30) =$$

$$\cos(60) =$$

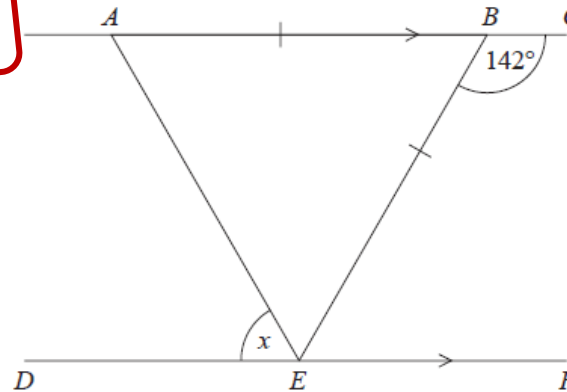
Area of a circle:

Circumference of a circle:

Area of a triangle:

Pythagoras Theorem:

## Problem



*ABC and DEF are parallel straight lines.  
ABE is an isosceles triangle with  $AB = BE$ .  
Angle  $CBE = 142^\circ$*

Work out the size of angle  $x$ .  
Give a reason for each stage in your working.

Answers – Fold this over  
Skills:

Ali: £80 Beth: £200

Expression:  $12x + 4$

Power of 3:  $3^7$

Prime factors:  $2^3 \times 7$

**Formula:**

$\sin(30)=0.5$  ,  $\cos(60)=0.5$

Area of a circle =  $\pi r^2$

Circumference =  $\pi d$

Area of a triangle =  $\frac{1}{2}bh$

Pythagoras:  $a^2 + b^2 = c^2$

**Problem:**

Here is one way:

$$\angle ABC = 38^\circ$$

Reason: Angles on a straight line =  $180^\circ$

$$\angle BEA = 71^\circ$$

Reason: Base angles in an isosceles are equal

$$x = 71^\circ$$

Reason: Alternate angles are equal.  $\angle AED = \angle BAE$