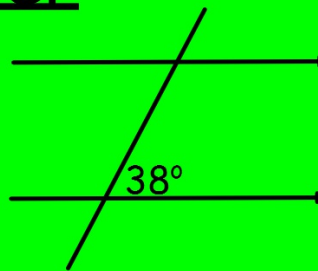


Starter

1. Fill in the missing angles



2. Change the following to standard form

a. 52000

b. 0.009

c. 1080000

3. Solve the following

a. $3(2x - 1) + 7 = 5x + 9$

b. $6(9f - 4) - 3(7f - 8) = 0$

4. The total number of birds in a zoo's enclosure is 72.

If the ratio of native:tropical species is 7:5, how many native birds are there?

Starter

1. Change the following to number form

a. 4.5×10^4

b. 1.95×10^{-3}

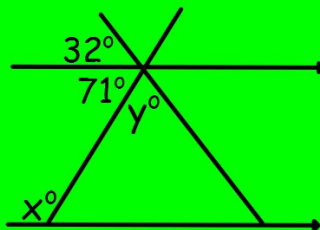
c. 2.08×10^5

2. Solve the following

a. $9(x - 1) = 4(2x - 3)$

b. $4(y + 5) - 3(y - 3) = 34$

3. Find angles x° and y° .



4. At a recent Highland derby, there were 1200 Inverness Caledonian Thistle (ICT) fans and 1500 Ross County (RC) fans.

a. Find the ratio of fans in its simplest form.

b. At the next game, there were 1800 RC fans. Assuming the fans had turned up in the same ratio, how many ICT fans were there?

Starter

1. Change the following measurements to metres (m)
 - a. 41 cm
 - b. 8250 mm
 - c. 0.69 km
2. Solve the following
 - a. $3(3x + 5) - 7 = 5(x + 3)$
 - b. $7 - 5(2 - 3x) = 4(3x + 1)$
3. A fully grown adult blue whale weighs approximately 1.65×10^5 kg. Its newly born calf weighs $\frac{1}{60}$ of this. How heavy is the calf?
4. Phil and John arrange to meet at a cafe, C. Phil leaves his house (P) and walks on a bearing of 045° to reach the cafe. John lives directly East of Phil. He leaves his house (J) and walks on a bearing of 294° to reach the cafe.
Draw a diagram to represent the situation and find angle PCJ.

Starter

1. Round the following to 2 d.p.

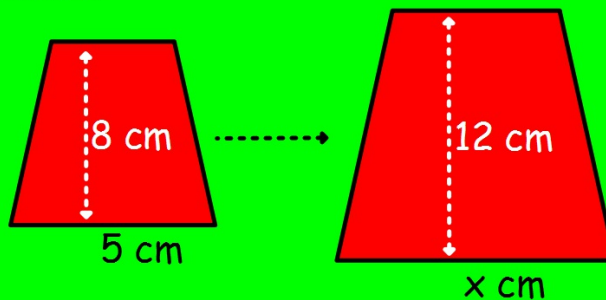
a. 39.624

b. 1.0945

c. 0.0999

2. The following shapes are similar.

Calculate the length of x .



3. Solve the following

a. $4(2x + 5) = 8 - 3(x + 7)$

b. $3x - 2(2x - 3) + 3 = -8$

4. The population of Scotland is approximately 5×10^6 .

If the ratio of Gaelic speakers to non-Gaelic speakers is 3:197, how many Gaelic speakers are there?

Starter

1. Round the following to 2 s.f.

a. 368520

b. 12.891

c. 0.06972

2. Fully factorise

a. $6fg - 18f^2$

b. $24xy^2z^2 - 18xy^3z + 15x^2yz^2$

3. Solve the following

a. $5(3x - 1) = 2(5x + 1)$

b. $15x = 3(x - 1) - 4(1 - x)$

4. The following shapes are similar.

Calculate the lengths
of x , y and z .

