

Clive On Angles 1 (Lines, Points, Triangles)

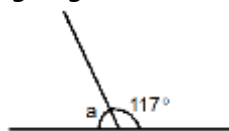
Clive is tackling his angles homework and knows that he's made mistakes somewhere.

Can you spot and correct the mistakes Clive has made?

Can you explain what mistakes Clive has made, and maybe give him some tips so that he (hopefully) doesn't make them again?

Question 1:

Find the missing angle a in the diagram below:



Clive's answer:

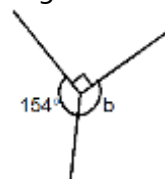
The angles form a straight line.
Answer: 83°

Your answer:

What mistake has Clive made?

Question 2:

Find the missing angle b in the diagram below:



Clive's answer:

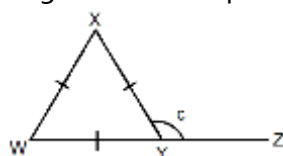
The angles around a point add to 360° .
Answer: $360^\circ - 154^\circ = 206^\circ$

Your answer:

What mistake has Clive made?

Question 3:

Find the missing angle c below explaining your answer:



Clive's answer:

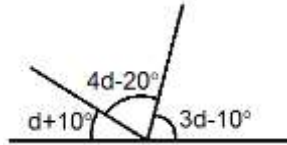
WXY is an equilateral triangle.
Answer:
 $180^\circ \div 3 = 60^\circ$

Your answer:

What mistake has Clive made?

Question 4:

Find the value of the letter d in the diagram below, explaining your answer.



Clive's answer:

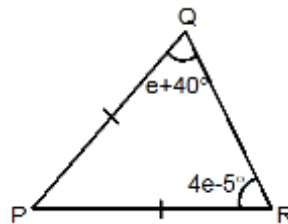
Your answer:

The three angles form a straight line so:
 $d + 10^\circ + 4d - 20^\circ + 3d - 10^\circ = 180^\circ$
 Simplify and solve:
 $8d - 20^\circ = 180^\circ$ so $8d = 200^\circ$
 Answer: $d = 25^\circ$

What mistake has Clive made?

Question 5:

Find the value of the letter e in the diagram below, explaining your answer.



Clive's answer:

Your answer:

It is an equilateral triangle so
 $e + 40^\circ = 60^\circ$
 Answer:
 $e = 20^\circ$

What mistake has Clive made?