

Intermediate Tier Checkout Challenge

tinyurl.com/YGSCC-6



#6 Numeracy Jun17 P1Q7

Name: _____

Kari is making a jigsaw puzzle.
She has designed the pattern on a piece of paper.
Kari plans to make each piece of the jigsaw a different colour.

Part of her plan is shown below.

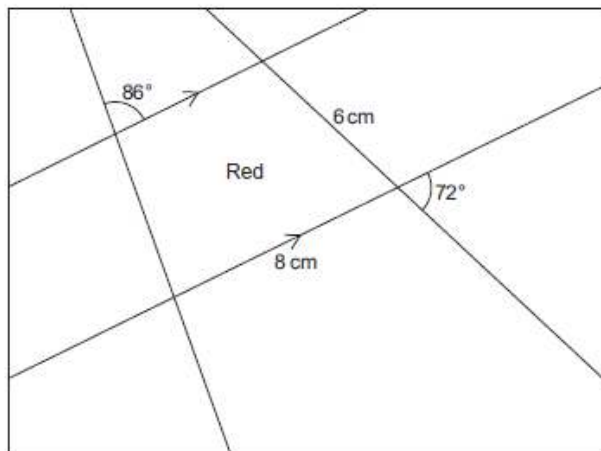


Diagram not drawn to scale

Kari now sketches a diagram of the red piece of the jigsaw, which is shown below.
She shows some extended lines and indicates all the angles she needs to find.

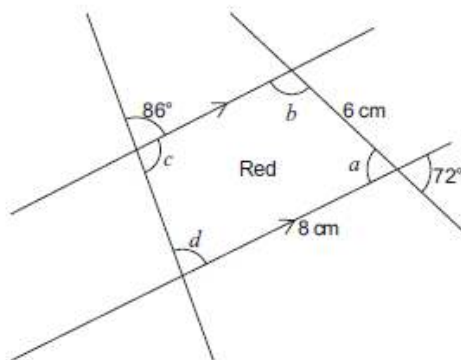


Diagram not drawn to scale

Find the 4 missing angles in the red piece of the jigsaw.
Draw the red piece of Kari's jigsaw accurately.
One side has been drawn for you.

[6]

.....

.....

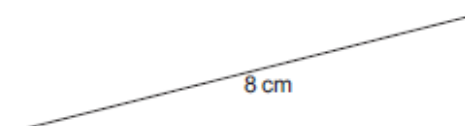
.....

.....

$a = \text{.....}^\circ$, $b = \text{.....}^\circ$, $c = \text{.....}^\circ$, $d = \text{.....}^\circ$

Space for drawing the red piece of jigsaw:

****You'll need to extend the given line to 8cm****





Well done – Full marks on a Grade C challenge question

You dropped marks because:

Markscheme

<p>7.</p> <p>$a = 72^\circ$ and $c = 94^\circ$ $b = 108^\circ$ $d = 86^\circ$</p> <p>Correct diagram within $\pm 2\text{mm}$ and $\pm 2^\circ$ tolerances</p>	<p>B1</p> <p>B1</p> <p>B1</p> <p>B3</p> <p>If contradiction between diagram and answer space, mark the answer space, except if a transition slip</p> <p>FT 180 – 'their a'</p> <p>FT 180 – 'their c'</p> <p>Ignore extensions of lines in construction, mark the quadrilateral</p> <p>Attempt (FT) using template irrespective of angles stated</p> <p>B2 for diagram with either of :</p> <ul style="list-style-type: none">• $6\text{cm} \pm 2\text{mm}$ and $a = 72^\circ \pm 2^\circ$ and either $b = 108^\circ \pm 2^\circ$ or $d = 86^\circ \pm 2^\circ$• all correct angles $\pm 2^\circ$ with 6cm incorrect <p>B1 for $6\text{cm} \pm 2\text{mm}$ and $a = 72^\circ \pm 2^\circ$ or $d = 86^\circ \pm 2^\circ$</p>
---	---