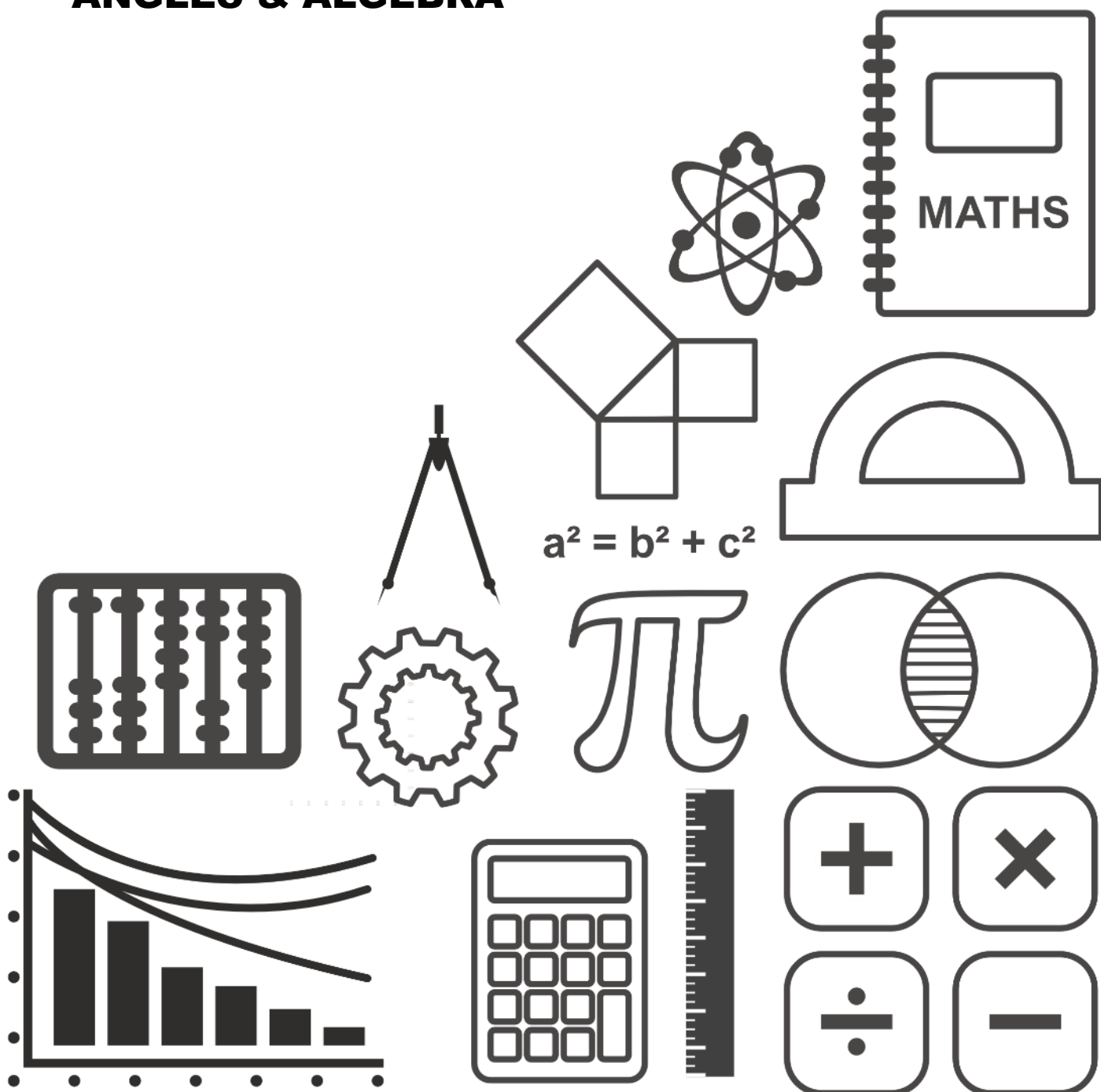
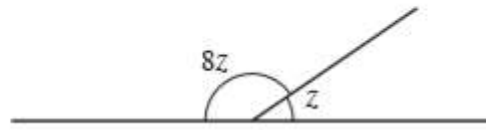


# MATHSDIY

## GCSE TOPIC BOOKLET ANGLES & ALGEBRA



1. Find the size of the angle marked  $z$ .



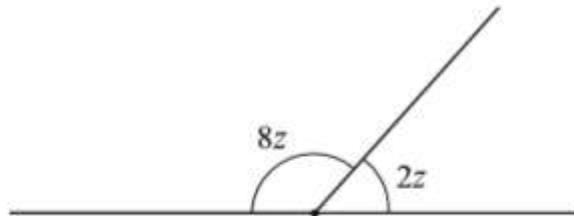
*Diagram not drawn to scale.*

.....

.....

$z = \dots\dots\dots^\circ$  [2]

- 2.



*Diagram not drawn to scale.*

Find the value of  $z$ .

.....

.....

.....

$z = \dots\dots\dots^\circ$  [2]

3. The angles of a quadrilateral are  $x^\circ$ ,  $49^\circ$ ,  $3x^\circ$  and  $111^\circ$ .  
Form an equation in  $x$ , and use your equation to find the value of  $x$ .

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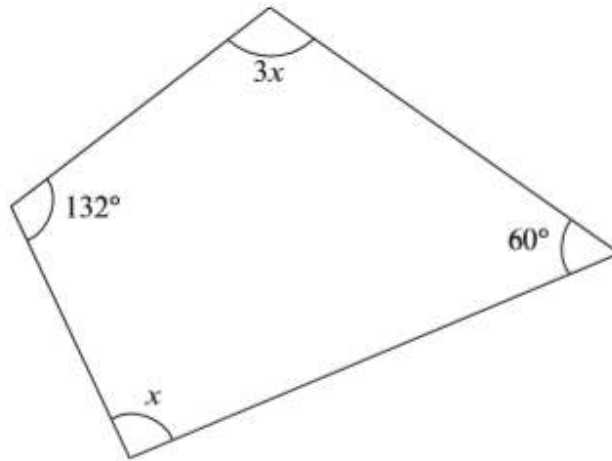
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[4]

4.



*Diagram not drawn to scale*

Calculate the value of  $x$ .

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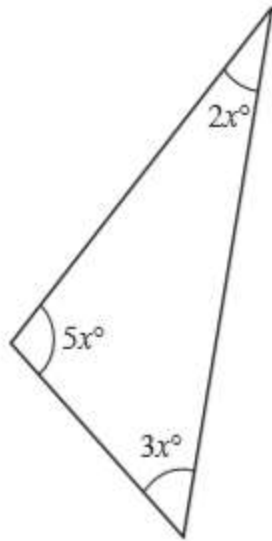
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$x = \dots\dots\dots$

[4]

5. The diagram shows a triangle with angles, measured in degrees, of  $5x$ ,  $2x$  and  $3x$ .



*Diagram not drawn to scale.*

Form an equation in  $x$  and solve it.

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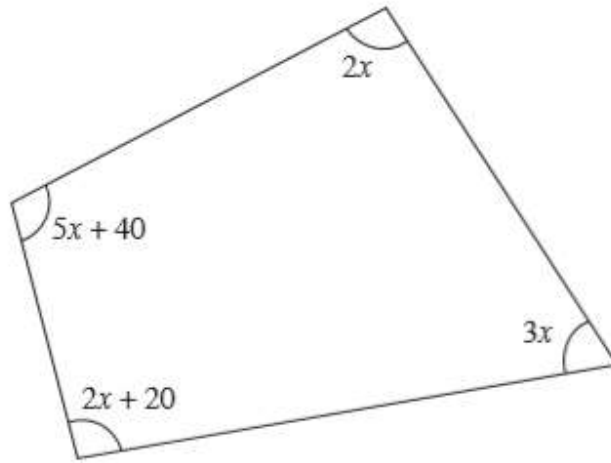
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[3]

6. The diagram shows a quadrilateral with angles, measured in degrees, of  $5x + 40$ ,  $2x + 20$ ,  $2x$  and  $3x$ .



*Diagram not drawn to scale.*

Form an equation in  $x$  and solve it.

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[3]

7. The diagram shows four angles, measured in degrees, meeting at a point  $O$ .

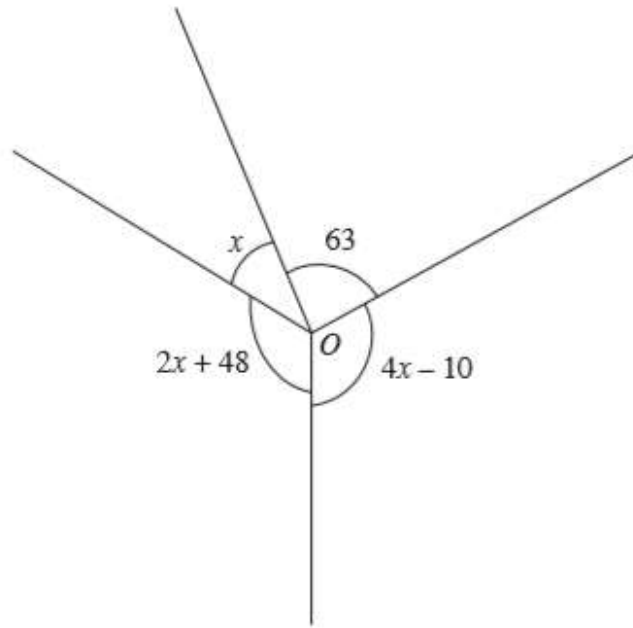


Diagram not drawn to scale.

(a) Write down an equation that  $x$  satisfies.

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[2]

(b) Solve your equation to find the value of  $x$ .

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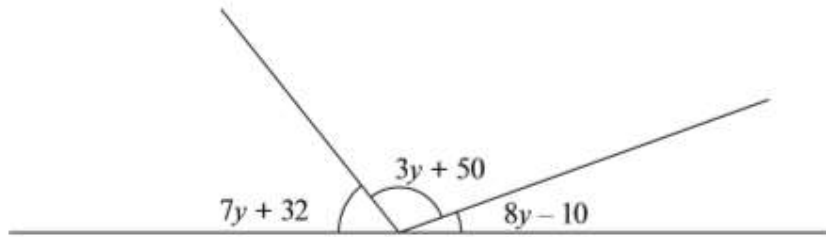
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[2]

$x = \dots\dots\dots^\circ$

8.



*Diagram not drawn to scale*

All of the angles are measured in degrees.

Find the size of each of the three angles.

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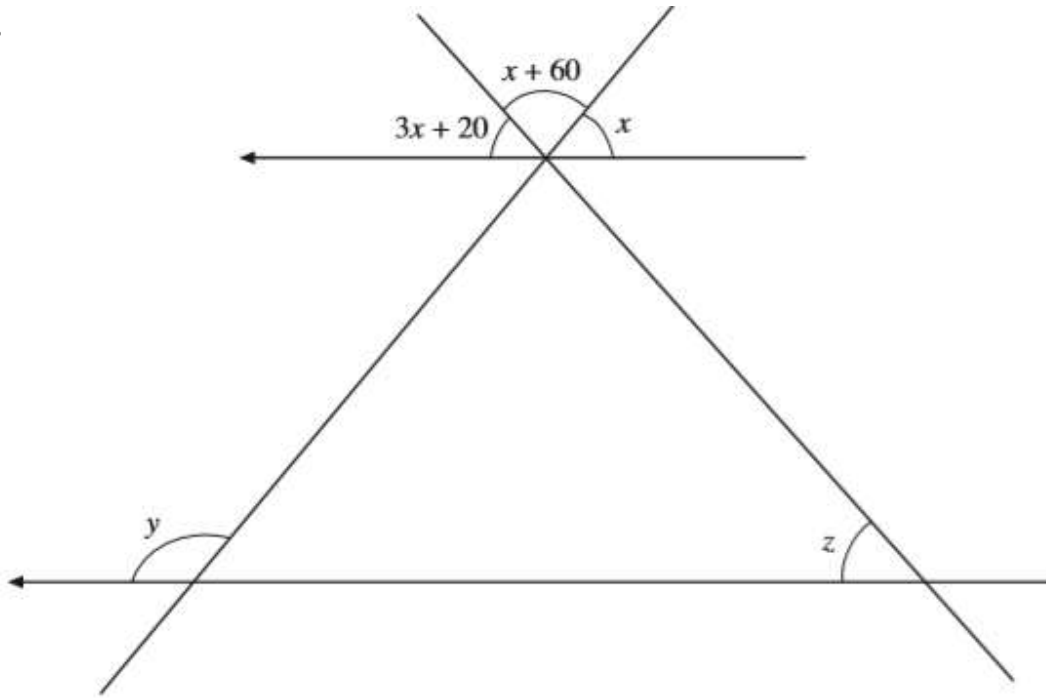
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$7y + 32 = \dots\dots\dots^\circ$        $3y + 50 = \dots\dots\dots^\circ$        $8y - 10 = \dots\dots\dots^\circ$

[5]

9.



*Diagram not drawn to scale.*

All angles are measured in degrees.  
Find the size of angles  $x$ ,  $y$  and  $z$ .

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$x =$  ..... ,  $y =$  ..... ,  $z =$  .....

[5]