THIRD SPACE LEARNING

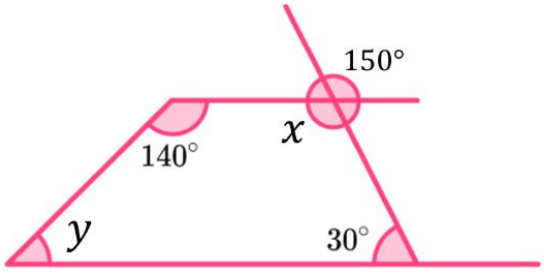
GCSE Exam Questions

Vertically Opposite Angles | Geometry & Measure

GCSE Exam Questions: Vertically Opposite Angles

1) **(a)** Use information in the diagram below to find the value of x.

Give a reason for your answer.



(2)

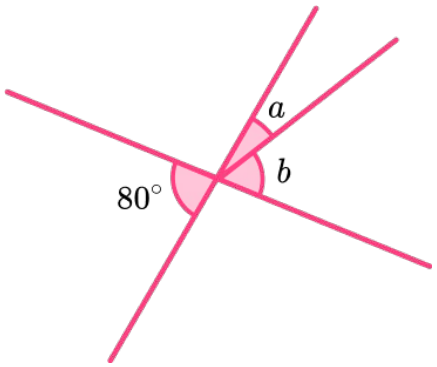
(b) Determine the value of y. State any angle facts used.

(3)

(5 marks)

---

2) Angle b is three times the size of angle a.



Work out the size of angle a and angle b.

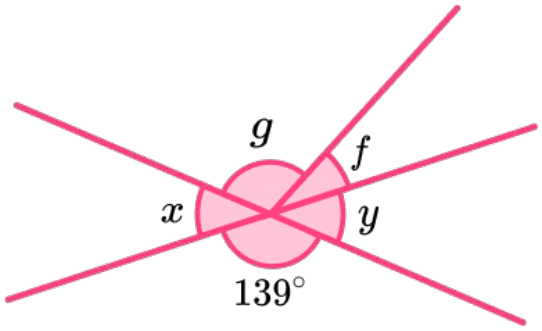
$a =$ _____

$b =$ _____

(3 marks)

GCSE Exam Questions: Vertically Opposite Angles

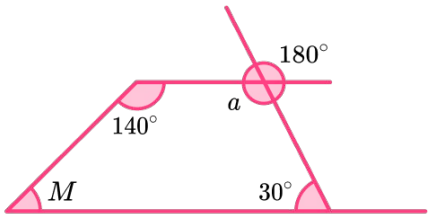
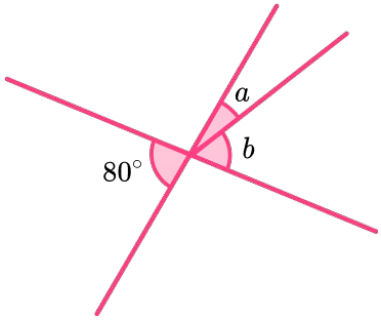
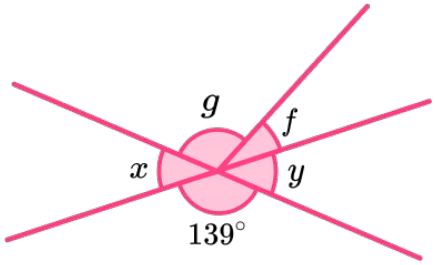
3) Angle f is one quarter of the size of angle g.



Bob thinks angle f is $28°$. Is Bob correct? Explain why.

(5 marks)

GCSE Exam Questions: Vertically Opposite Angles Answers

	Question	Answer	Marks
1) (a)	Use information in the diagram below to find the value of x. Give a reason for your answer.  	**(a)** $x = 150°$ Vertically opposite angles are equal.	**(1)** **(1)**
(b)	Determine the value of y. State any angle facts used.	**(b)** 360 - 140 - 30 - 150 40° Angles in a quadrilateral add to 360°	**(1)** **(1)** **(1)**
2)	Angle b is three times the size of angle a.  Work out the size of angle a and angle b.	$4a = 80$ $a = 20°$ $b = 20 \times 3 = 60°$ **Alternative Method** $80 \div (1 + 3)$ $a = 20°$ $b = 20 \times 3 = 60°$	**(1)** **(1)** **(1)** **(1)** **(1)** **(1)**
3)	Angle f is one quarter of the size of angle g. Bob thinks angle f is 28°.  Is Bob correct? Give reasons.	$g = 28 \times 4 = 112$ $f + g = 28 + 112 = 140$ However $f + g = 139°$ Vertically opposite angles are equal No, Bob is not correct **Alternative Method** $4f (= g) + f = 5f$ $5f = 139$ Vertically opposite angles are equal $f = 27.8°$ No, Bob is not correct	**(1)** **(1)** **(1)** **(1)** **(1)** **(1)** **(1)** **(1)** **(1)** **(1)**

Where to go next?

For more diagnostic questions, and GCSE maths revision resources and worksheets to support students in fixing any misconceptions take a look at the free Third Space Learning GCSE maths revision pages.

Scan the QR code to discover our library of FREE GCSE maths revision resources

Do you have KS4 students who need additional support in maths?

Our specialist tutors will help students to develop the skills they need to succeed at GCSE in weekly one to one online revision lessons. Trusted by secondary schools across the UK.

Visit thirdspacelearning.com to find out more.

THIRD SPACE LEARNING