



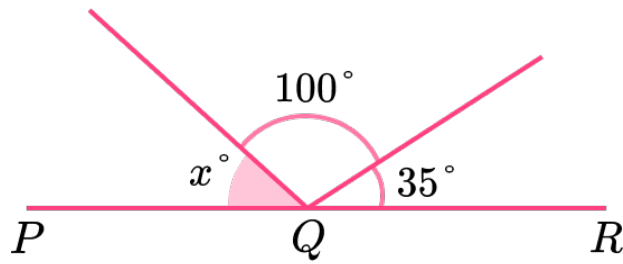
THIRD SPACE
LEARNING

GCSE Exam Questions

Angle Rules | Geometry &
Measure

GCSE Exam Questions: Angle Rules

- 1) PQR is a straight line. Find the value of x .



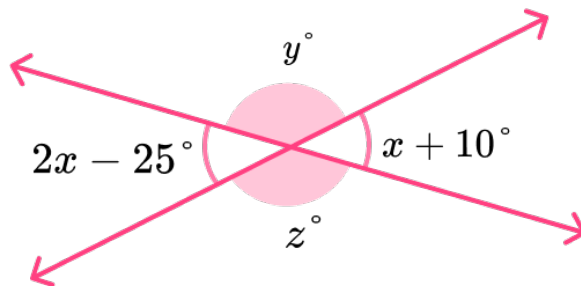
(2 marks)

- 2) Three angles fit exactly around a point. The second angle is 20 degrees more than the first angle. The third angle is twice the size of the second angle.

Find the size of each of the three angles.

(4 marks)

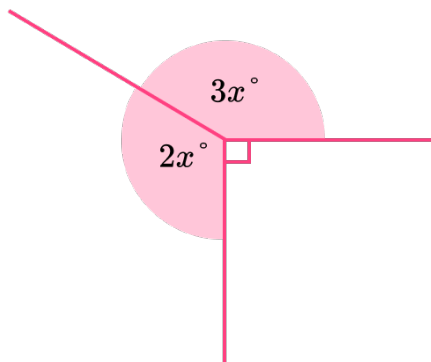
- 3) Find the value of x , y and z .



(5 marks)

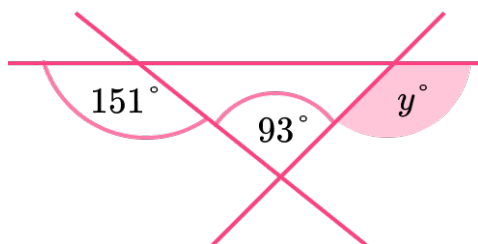
GCSE Exam Questions: Angle Rules

- 4) Find the value of x .



(3 marks)

- 5) In the diagram below three straight lines are shown.
Find the value of the angle labelled y .

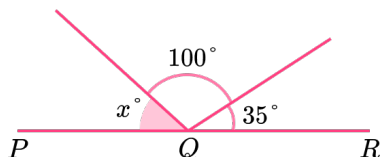
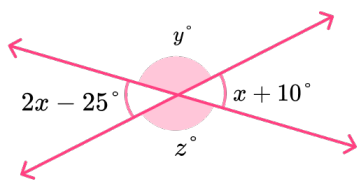
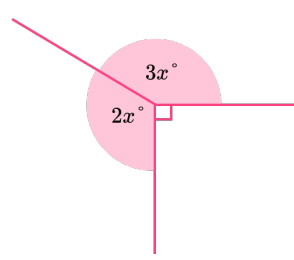
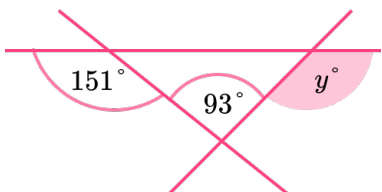


(3 marks)

- 6) Two angles are supplementary and one of them is three times as big as the other.
What is the size of the smaller of the two angles?

(3 marks)

GCSE Exam Questions: Angle Rules Answers

	Question	Answer	Marks
1)	QR is a straight line. Find the value of x. 	$180^\circ - (100^\circ + 35^\circ)$ 45°	(1) (1)
2)	Three angles fit exactly around a point. The second angle is 20 degrees more than the first angle. The third angle is twice the size of the second angle. Find the size of each of the three angles.	2 of the following seen or implied 'x', '$x + 20$', '$2(x + 20)$' $4x + 60 = 360$ oe $x = 75$ Angles shown as 75° , 95° , and 190°	(1) (1) (1) (1)
3)	Find the value of x, y and z. 	$2x - 25 = x + 10$ oe $x = 35$ One equation created for a straight line $= 180$ e.g. $x + 10 + y = 180$ $y = 135^\circ$ $z = 135^\circ$	(1) (1) (1) (1)
4)	Find the value of x 	Equation created where sum of angles = 360 e.g. $2x + 3x + 90 = 360$ oe Attempt to solve equation for x with at least one step carried out correctly for their equation $x = 54$	(1) (1)
5)	In the diagram below three straight lines are shown. Find the value of the angle labelled y. 	Allow any valid method of completion $180 - 151 = 29^\circ$ $180 - (93 + 29) = 58^\circ$ $180 - 58 = 122^\circ$	(1) (1) (1)

GCSE Exam Questions: Angle Rules Answers

	Question	Answer	Marks
6)	Two angles are supplementary and one of them is three times as big as the other. What is the size of the smaller of the two angles?	180 seen or implied at any point (could be in a diagram)	(1)
		$a + 3a = 180$ oe	(1)
		Smaller angle = 45°	(1)

Where to go next?

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