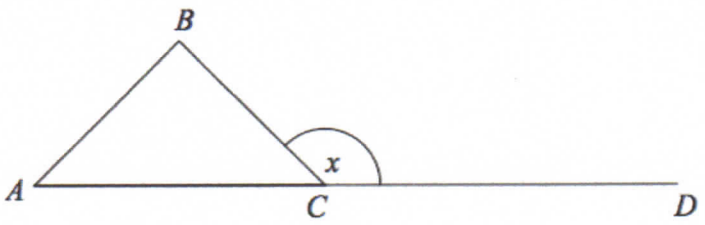
Geometry - Angles of a Triangle

Q1



ABC is an equilateral triangle.
ACD is a straight line.

(a) Work out the size of the angle marked x.

..... °

(2)

(b) Give a reason for your answer.

.....

.....

(1)

Q2

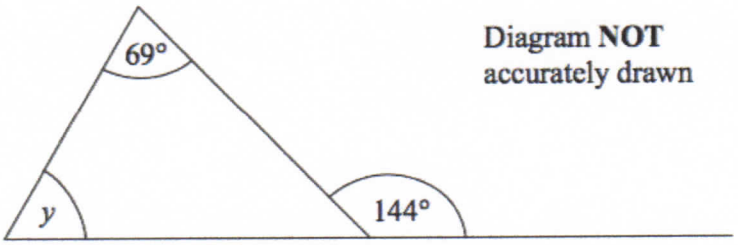


Diagram **NOT** accurately drawn

(b) (i) Work out the size of the angle marked y.

$y =$ ..... °

(ii) Give a reason for your answer.

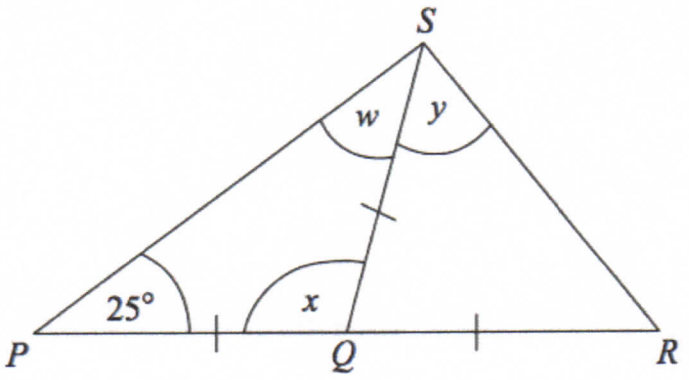
.....

.....

(3)

Geometry - Angles of a Triangle

Q3



PQR is a straight line.

$PQ = QS = QR$.

Angle $SPQ = 25°$.

(a) (i) Write down the size of angle w.

.....°

(ii) Work out the size of angle x.

.....°

(2)

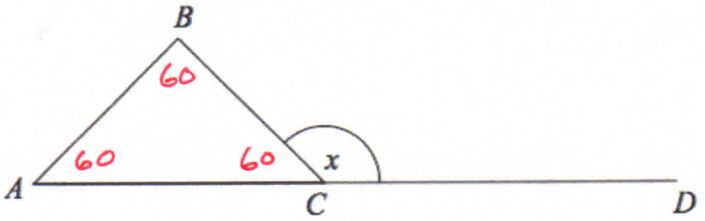
(b) Work out the size of angle y.

.....°

(2)

Geometry - Angles of a Triangle

Q1



ABC is an equilateral triangle.
ACD is a straight line.

(a) Work out the size of the angle marked *x*.

$180 - 60 = 120°$

120 °

(2)

(b) Give a reason for your answer.

Equilateral △ all angles 60°

Angles on straight line add up to 180°

(1)

Q2

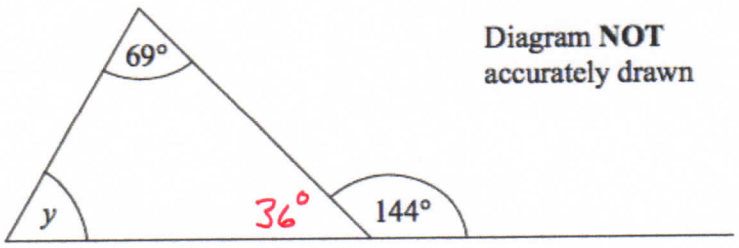


Diagram **NOT** accurately drawn

(b) (i) Work out the size of the angle marked *y*.

$y = 180 - (69 + 36)$
$= 180 - 105$
$= 75°$

y = 75 °

(ii) Give a reason for your answer.

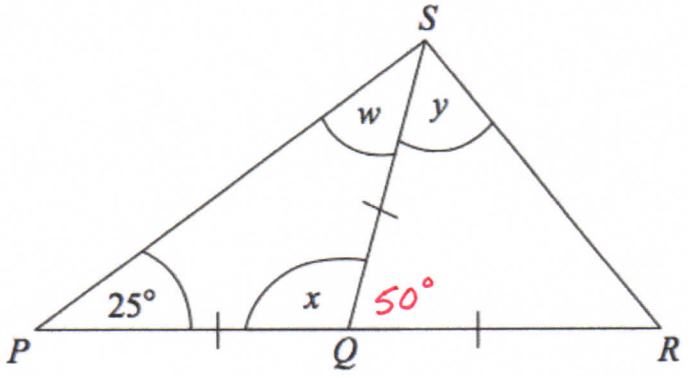
Angles on straight line add up to 180°

Angles of triangle add up to 180°

(3)

Geometry - Angles of a Triangle

Q3



PQR is a straight line.

$PQ = QS = QR$.

Angle $SPQ = 25°$.

(a) (i) Write down the size of angle *w*.

$w = 25°$ (base angles of isosceles triangle are equal)

25 °

(ii) Work out the size of angle *x*.

$x = 180 - (25 + 25)$
$= 180 - 50$
$= 130°$

(Angles of triangle add up to 180°)

130 °

(2)

(b) Work out the size of angle *y*.

Angle SQR = 50° (on a straight line with x)

$y = \frac{180 - 50°}{2} = \frac{130°}{2} = 65°$

(y is a base angle of isosceles △ SQR)

65° °

(2)