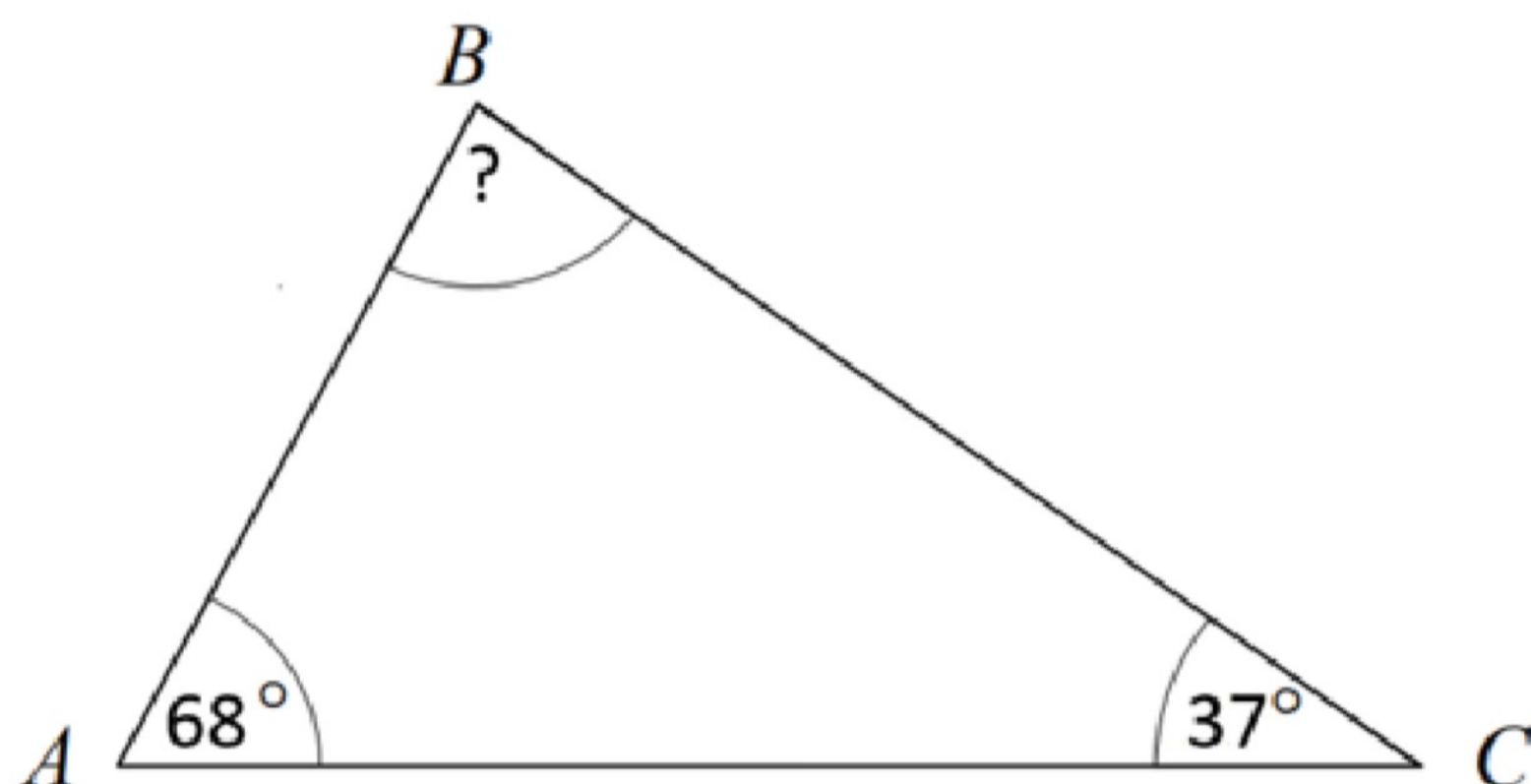




## Angles Exam Practice

**Note:** Unless stated, all diagrams are not drawn accurately.

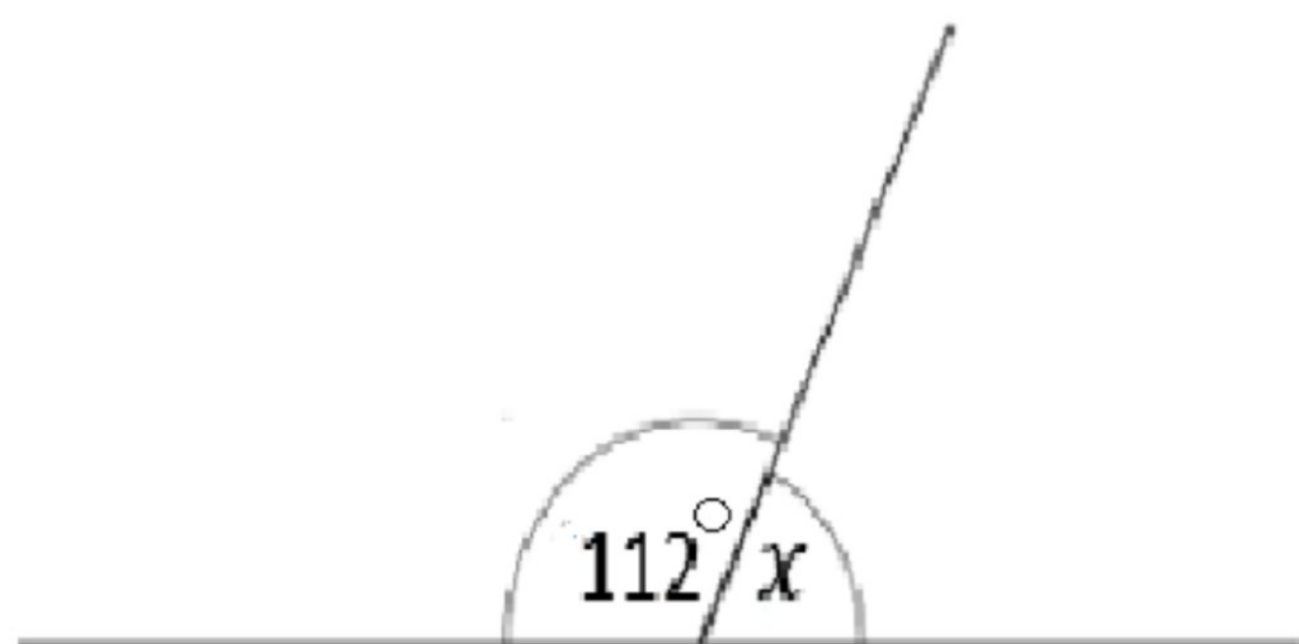
Q1. Find the missing angle in the triangle below:



$$180 - 68 - 37 \\ = 75$$

Answer: 75°  
(2 marks)

Q2. Work out angle  $x$

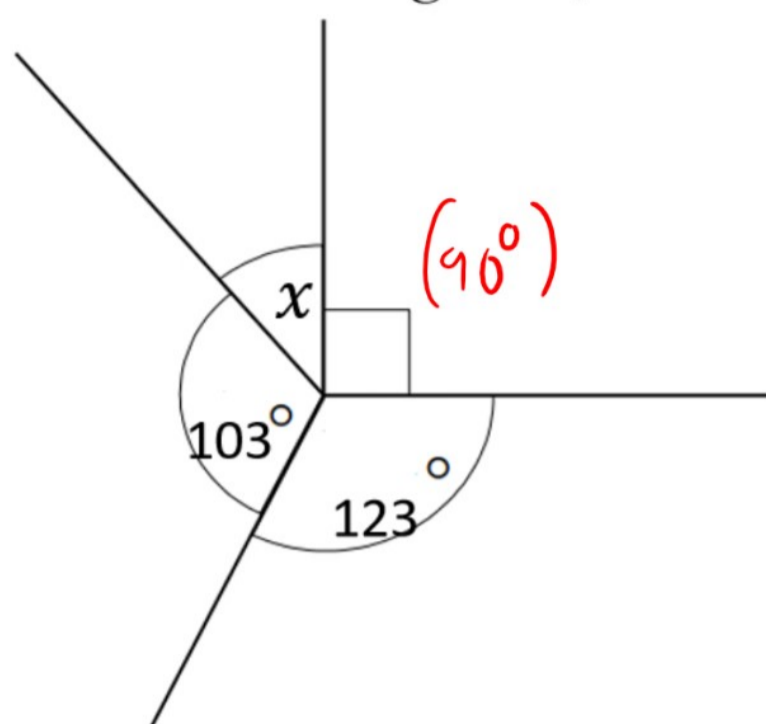


$$180 - 112$$

Answer: 68°  
(2 marks)



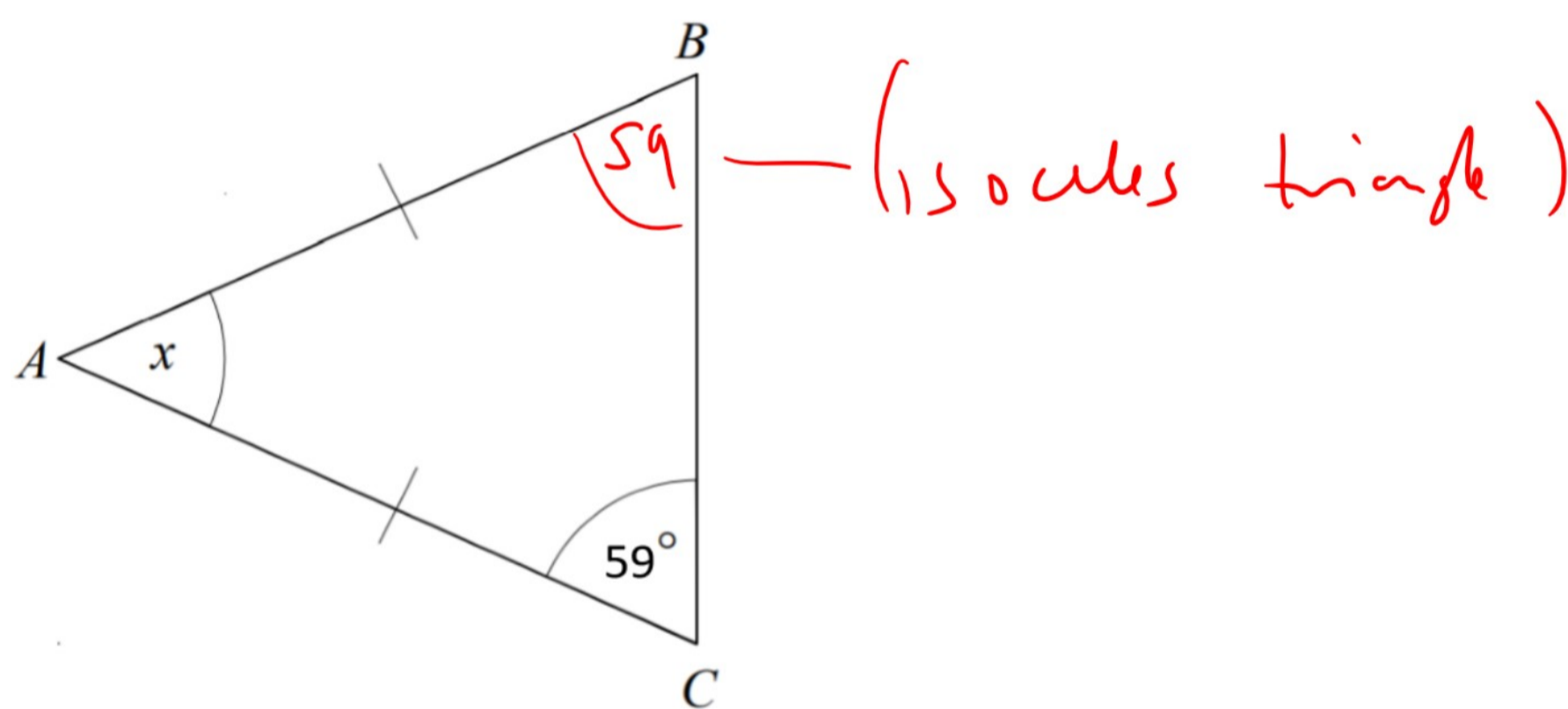
Q3. Work out angle  $x$ , showing your working out.



$$360 - 103 - 90 - 123 = 44$$

Answer: 44°  
(2 marks)

Q4. Work out the angle below, justifying your answer.

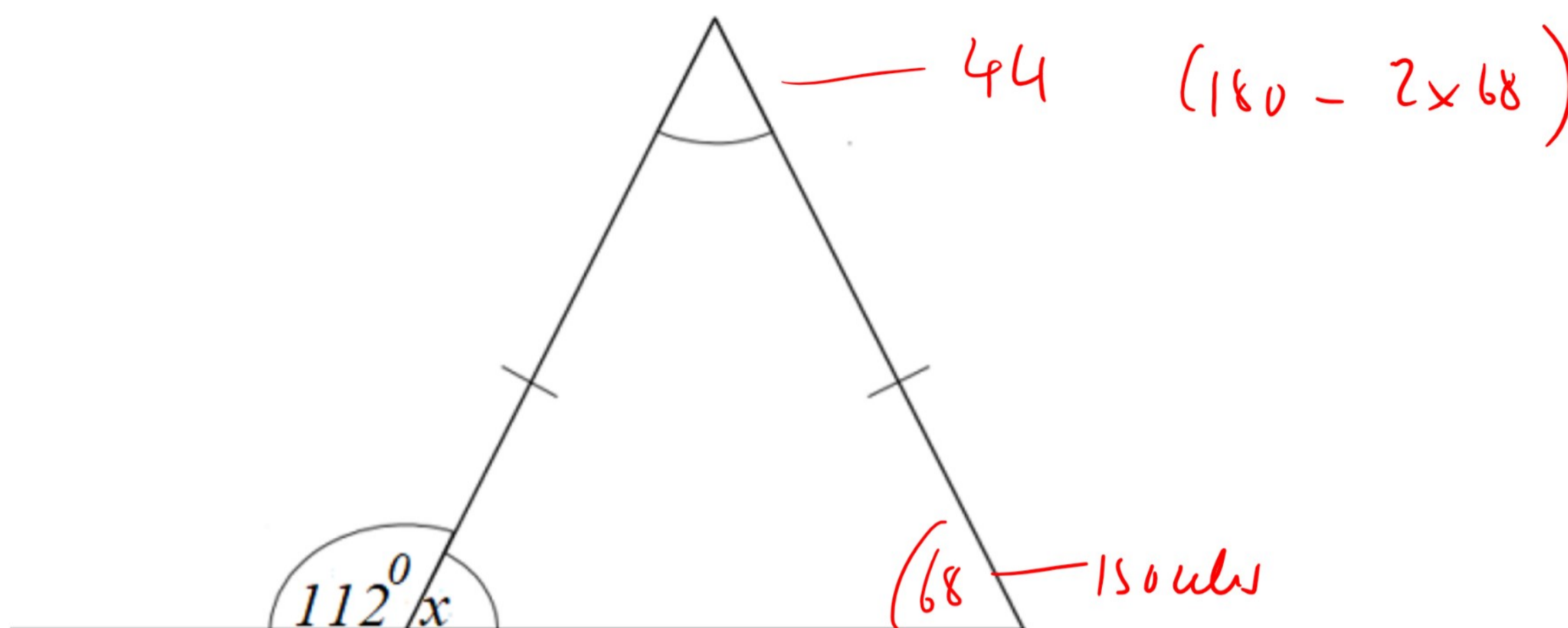


$$180 - (2 \times 59) = 62$$

Answer: 62°  
(2 marks)



Q5. Find the missing angles. You must give reasons for your answers.



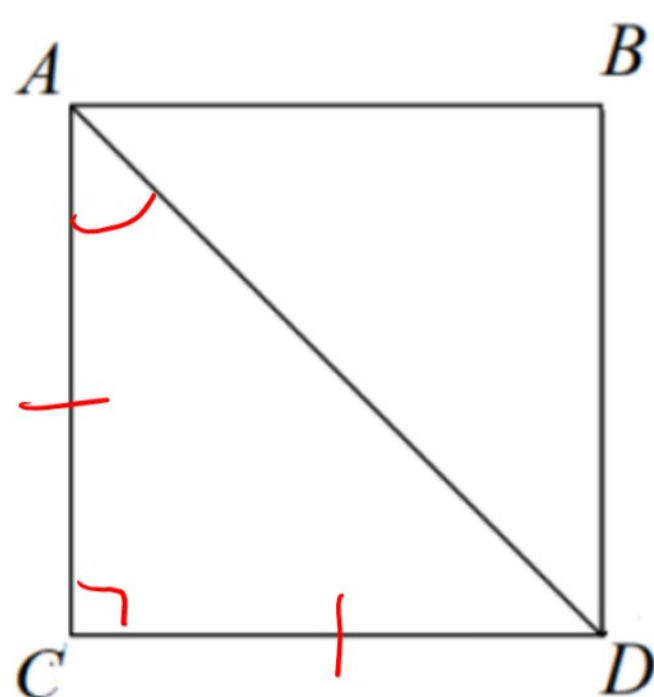
$$x = 68^\circ \text{ (angles on a straight line add up to } 180^\circ)$$
$$y = 44^\circ$$

Answer:  $x = 68^\circ, y = 44^\circ$   
(4 marks)





Q6. ABCD is a square. Work out the size of angle CAD. You must explain your reasoning.



- $\hat{A}BD = 90$  (square)
  - $ACD$  is isosceles (square)
- $$\Rightarrow \hat{C}AD = \frac{180 - 90}{2}$$
- $$= 45^\circ$$

Answer: 45°  
(2 marks)

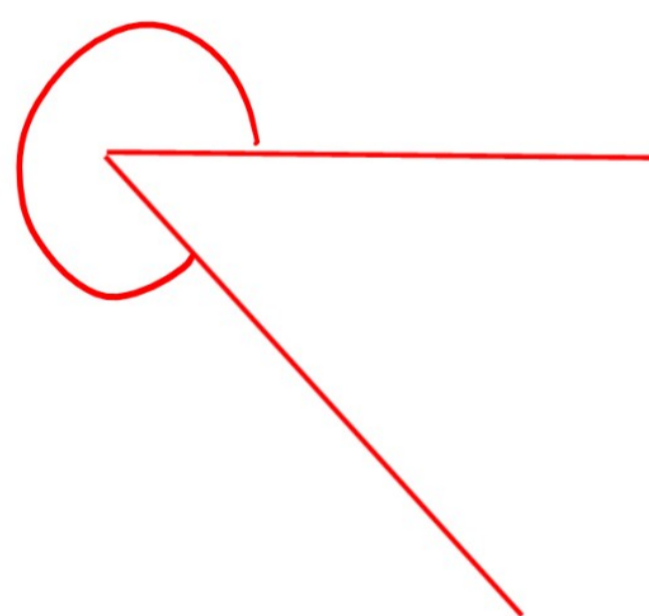
Q7. Draw an example of each of the following angles:

- (i) an obtuse angle      (ii) a reflex angle



(i)

(anything  $> 90, < 180$ )

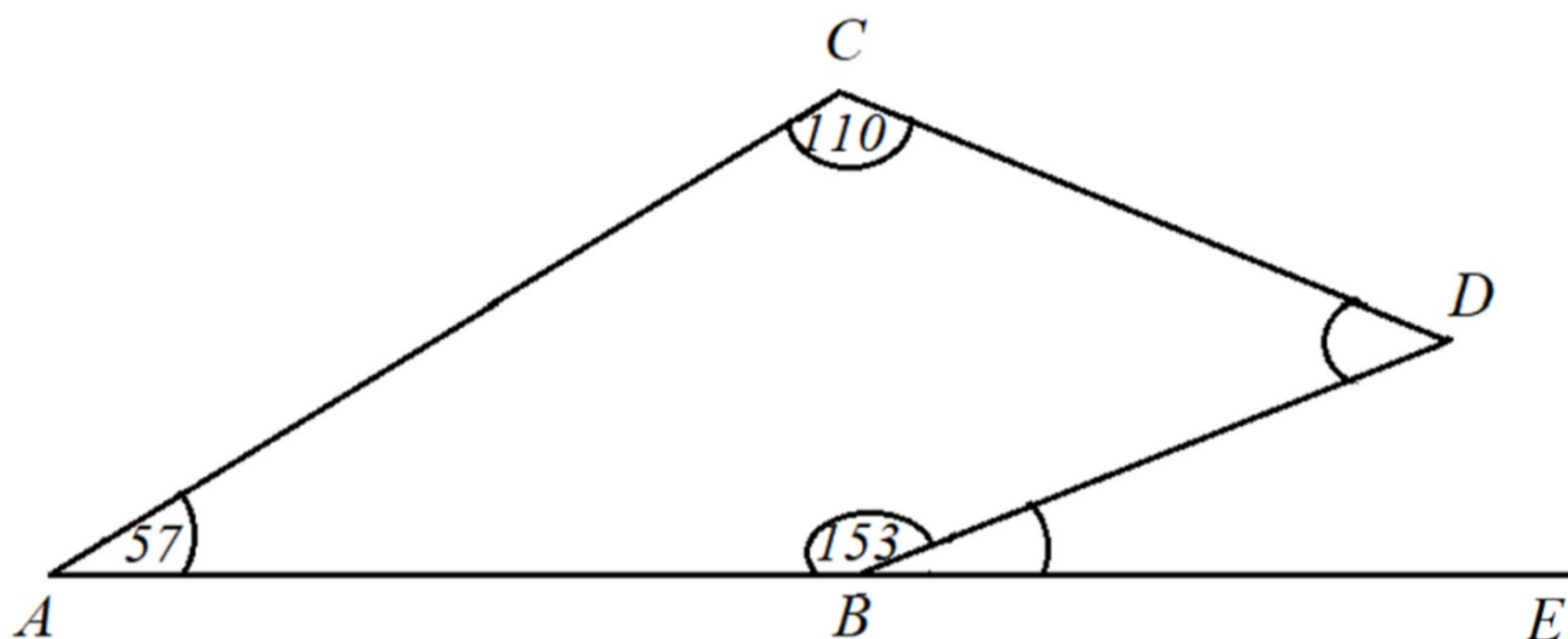


(ii) (anything  $> 180, < 360$ )

Answer: \_\_\_\_\_  
(2 marks)



Q8. Work out angles D and DBE, giving reasons for your answers.

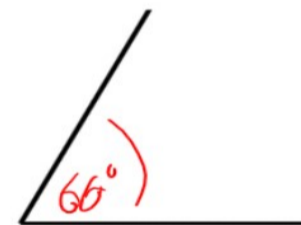


- $D = 360 - 57 - 110 - 153$   
 $= 50$  (angles in a quadrilateral add up to  $360^\circ$ )
- $DBE = 180 - 153$   
 $= 27$  (straight line)

Answer:  $D = 50^\circ$ ,  $DBE = 27^\circ$   
(4 marks)

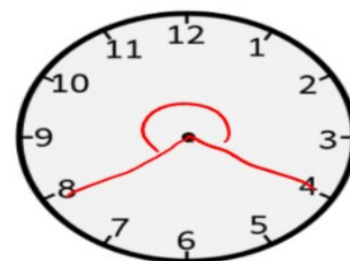


Q9. Draw an angle which is of size  $66^\circ$



Answer: \_\_\_\_\_  
(1 mark)

Q10. Here is a clock face, with the minute and hour hand removed.



(i) If the time was 8.20pm, what would be the size of the reflex angle which the hands would make?

- $12 \text{ hours} = 360^\circ$
- $\Rightarrow 1 \text{ hour} = 30^\circ$
- $8 \text{ hours} \times 30^\circ = 240^\circ$

Answer: 240°  
(2 marks)

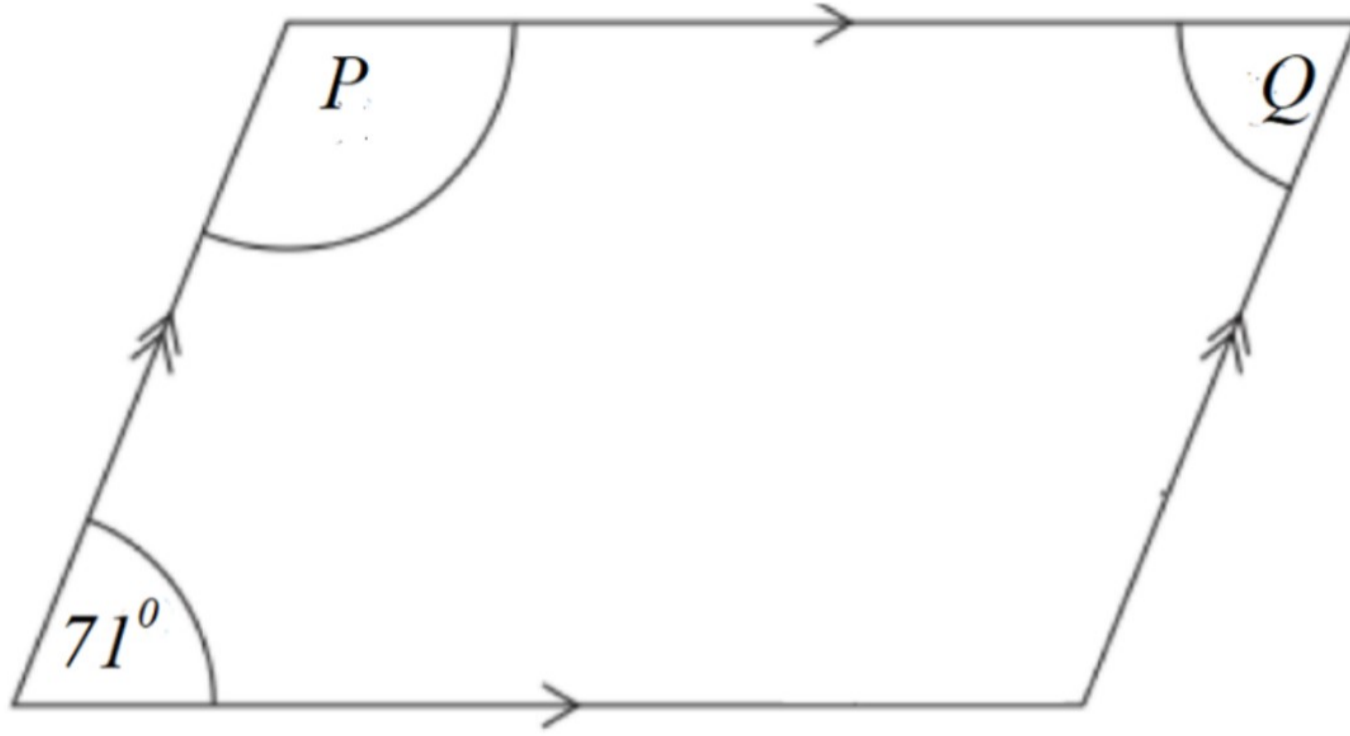
(ii) State a time which would create an angle of  $150^\circ$

$150^\circ = 5 \text{ hours}$   
eg, take 5pm / 5am / 17.00

Answer: 17.00  
(1 mark)



Q11. Work out angle the size of P and Q. Give reasons for your answers.



• parallelogram  $\Rightarrow Q = 71^\circ$  (opposites are equal)

•  $360 - (2 \times 71) = 218$

$$\Rightarrow P = \frac{1}{2} \times 218$$
$$= 109$$

(or use P and 71 are "co-interior": add up to  $180^\circ$ )

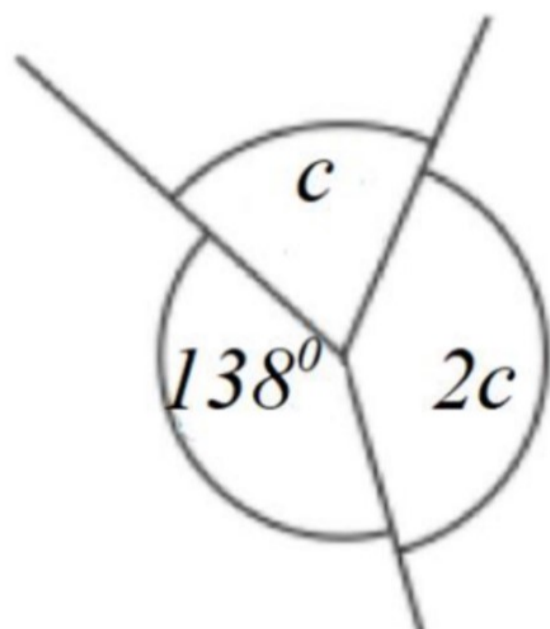
Answer:  $P = 109^\circ, Q = 71^\circ$

(4 marks)





Q12. Find the size of angle  $c$ , showing your working.



$$c + 2c + 138 = 360$$

$$3c + 138 = 360$$

$$3c = 222$$

$$c = 74^\circ$$

Answer:  $c = 74^\circ$   
(2 marks)