# JP Maths Revision

Attempt the paper before watching the solutions https://www.youtube.com/@JPMathsRevision

## Foundation / Higher Tier

# Angles in parallel lines

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a $\pi$ button, take the value of $\pi$ to be 3.142 unless the question instructs otherwise.

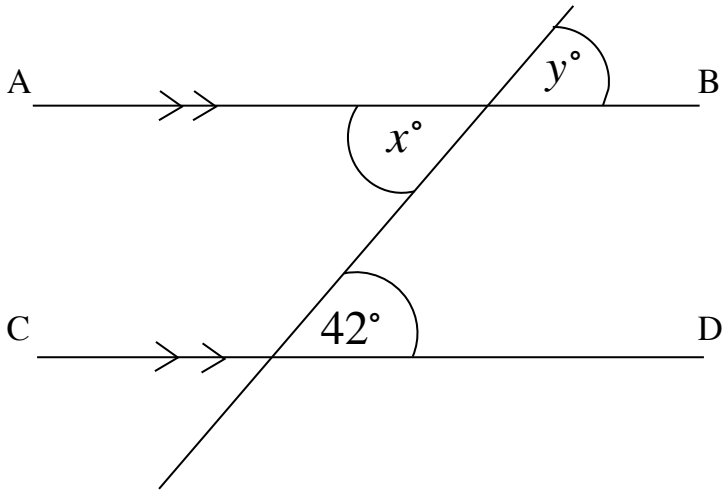
### Information

- The marks for **each** question are shown in brackets- *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

**1.** AB and CD are parallel lines.




(a) Write down the size of the angle marked $x°$.

42 °

**(1)**

(b) Give reason for your answer.

Alternate angles are equal.

**(1)**

(c) Write down the size of the angle marked $y°$.

42 °

**(1)**

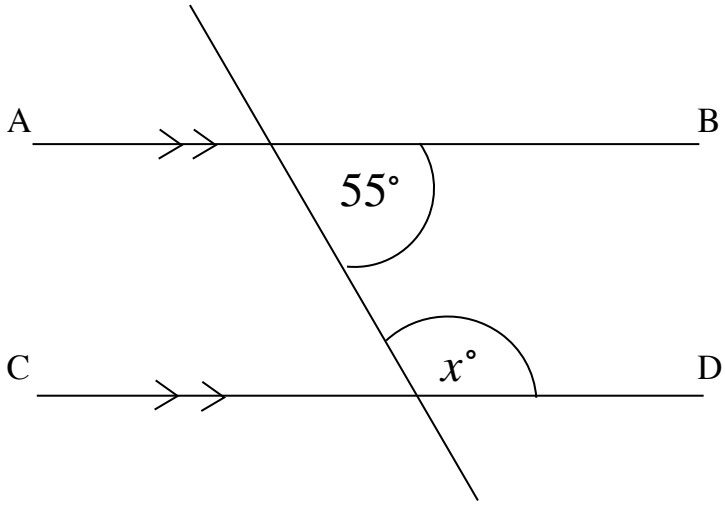
(d) Give reason for your answer.

Corresponding angles are equal.

**(1)**

**(Total for Question 1 is 4 marks)**

**2.** AB and CD are parallel lines.




(a) Write down the size of the angle marked $x°$.

180 - 55 = 125

125 °

**(1)**

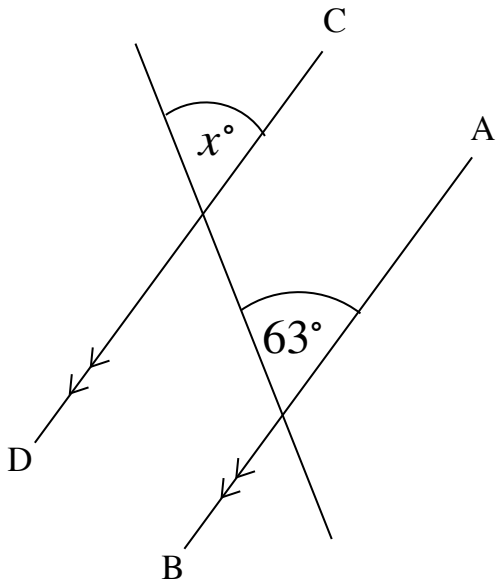
(b) Give reason for your answer.

Cointerior angles Sum to 180°.

**(1)**

**(Total for Question 2 is 2 marks)**

**3.** AB and CD are parallel lines.




(a) Write down the size of the angle marked $x°$.

63 °

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**(1)**

(b) Give reason for your answer.

Corresponding angles are equal.

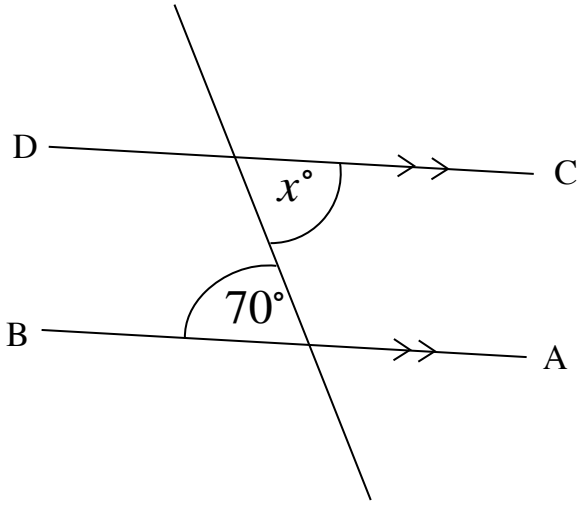
.....

.....

**(1)**

**(Total for Question 3 is 2 marks)**

**4.** AB and CD are parallel lines.




(a) Write down the size of the angle marked $x°$.

70 °

.....

**(1)**

(b) Give reason for your answer.

Alternate angles are equal

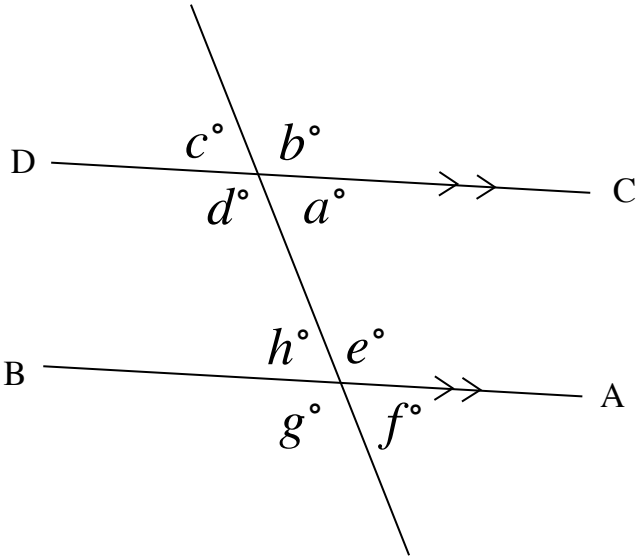
.....

.....

**(1)**

**(Total for Question 4 is 2 marks)**

**5.** AB and CD are parallel lines.




(a) Which angle is alternate to angle d?

e

.....

**(1)**

(b) Which angle is corresponding to angle b?

e

.....

**(1)**

(c) Which angle is co-interior to angle a?

e

.....

**(1)**

(d) Which angle is vertically opposite angle h?

f

.....

**(1)**

(e) Which angle is corresponding to angle g?

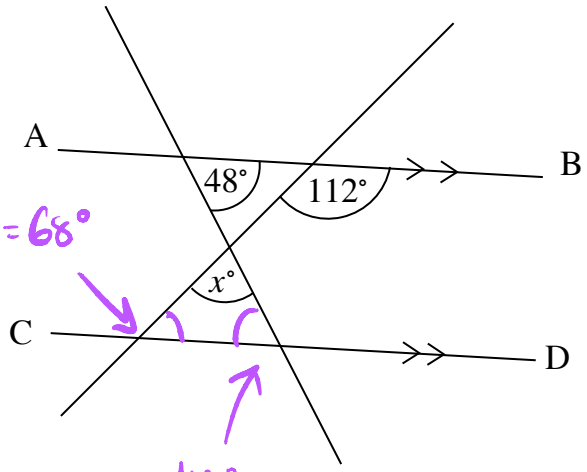
d

.....

**(1)**

**(Total for Question 5 is 5 marks)**

**6.** AB and CD are parallel lines.




180−112 = 68°

Cointerior angles are equal

48°

↳ alternate angles are equal.

Work out the size of the angle marked $x°$.

Give reasons for your answer.

180 − 68 − 48 = 64°

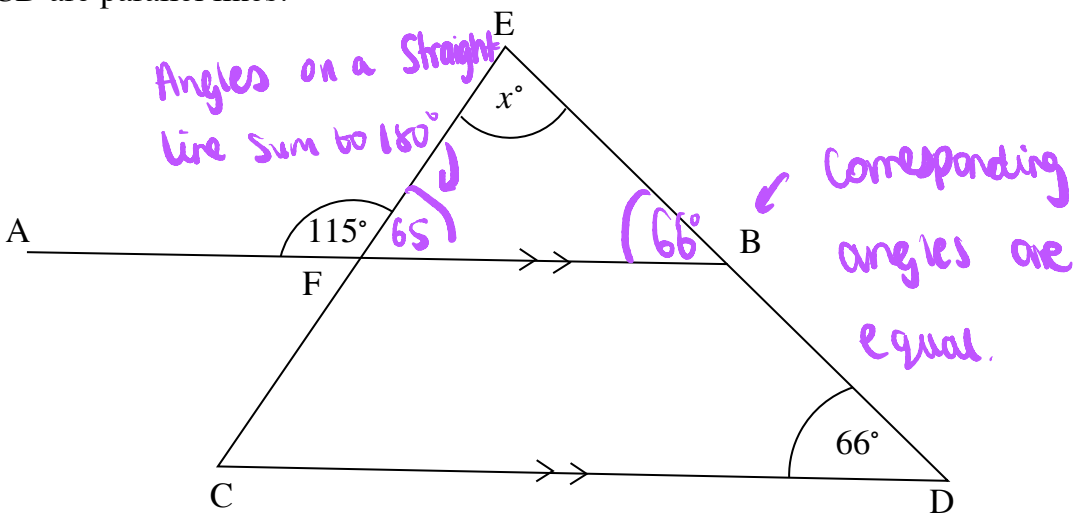
Angles in a triangle sum to 180°.

64 °

.....

**(Total for Question 6 is 4 marks)**

**7.** AB and CD are parallel lines.




Angles on a Straight Line Sum to 180°

Corresponding angles are equal.

Work out the size of the angle FEB.

Give reasons for your answer.

180 - 65 - 66

= 49

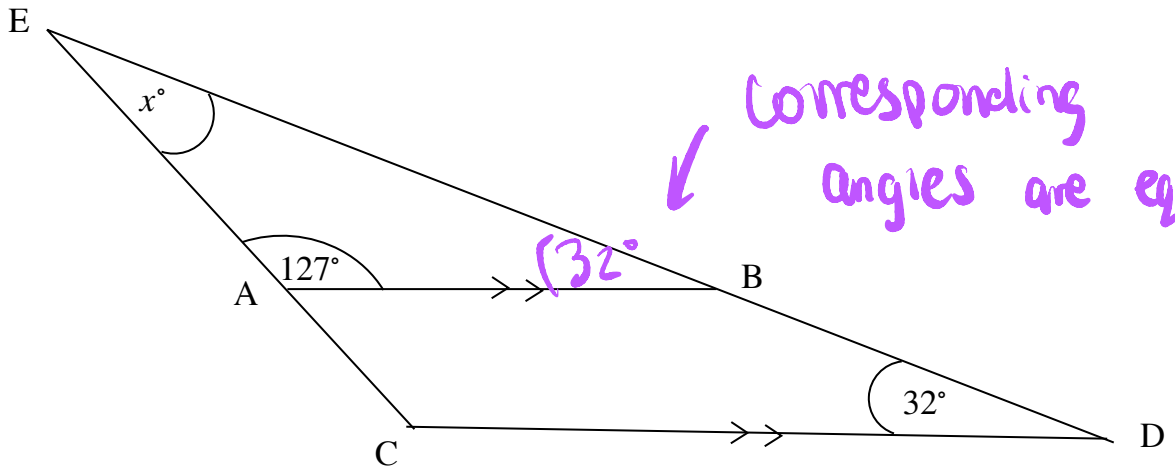
(angles in a triangle Sum to 180°.)

49 °

.....

**(Total for Question 7 is 4 marks)**

**8.** AB and CD are parallel lines.




Corresponding angles are equal

Work out the size of the angle AEB.

Give reasons for your answer.

$x = 180 - 127 - 32$

$= 21°$

angles in a triangle sum to 180°.

21 °

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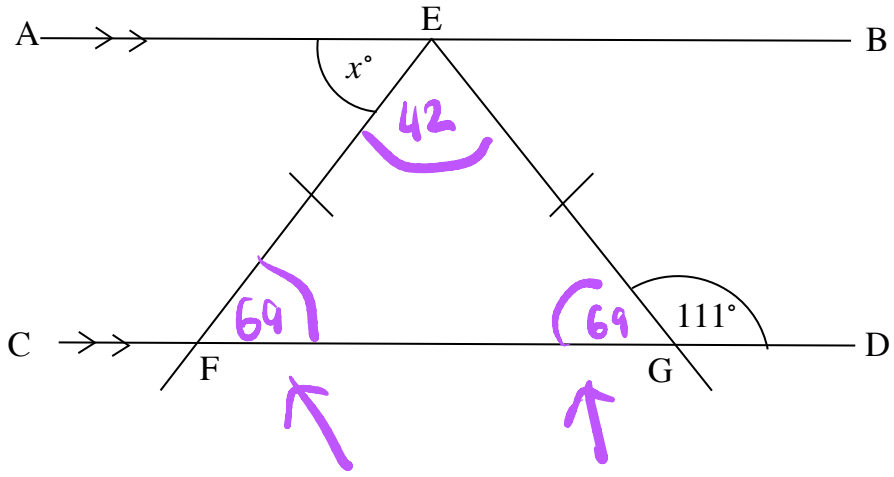
**(Total for Question 8 is 4 marks)**

**9.** AB and CD are parallel lines.




Work out the size of the angle AEF.

Give reasons for your answer.

base angles of an isosceles triangle are equal.

FEG = 180 - 69 - 69

= 42° → angles in triangle add to 180°

AEG = 111° → corresponding angles equal

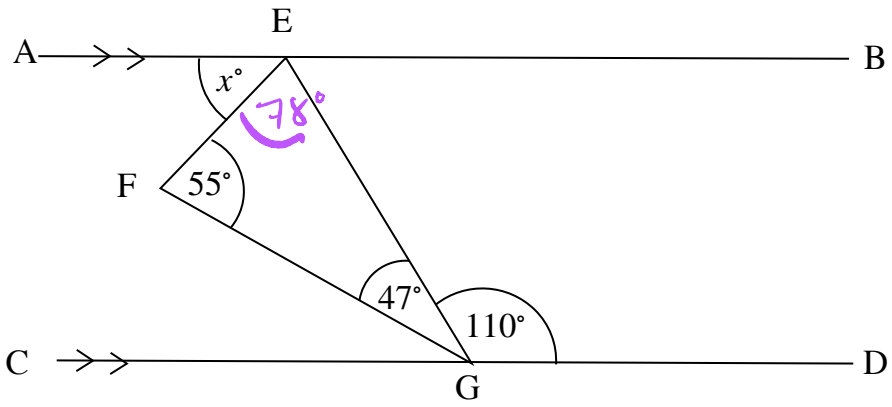
x = 111 - 42

= 69°

69 °

**(Total for Question 9 is 4 marks)**

**10.** AB and CD are parallel lines.




Work out the size of the angle AEF.

Give reasons for your answer.

FEG = 180 - 55 - 47 = 78° → angles in triangle sum to 180°

AEG = 110° → corresponding angles are equal

110 - 78 = 32°

32 °

.....

**(Total for Question 10 is 4 marks)**