

JustMaths

ANGLE FACTS

Name: _____

Total Marks: _____

Level	Max	Actual	RAG	Q.	Max	Actual	RAG
1.a.	1			1	4		
1.b.	2			2	3		
2.a.	1			3	4		
2.b.	2			4	3		
2.c.	2			5	4		
2.d.	2			6	4		
3.a	1			7	2		
3.b.	2			8	2		
4.a.	1			9	3		
4.b.	2						
4.c.	1						
4.d.	2						
4.e.	1						
5	5						

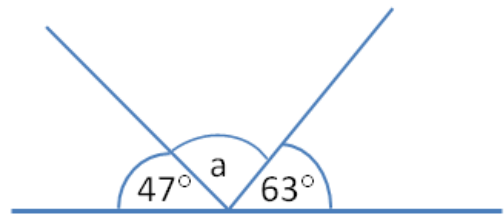
EXAM TECHNIQUE

1. Questions tend to be organised so that the missing angles are to be found alphabetically
2. Write all over your exam paper, including angles you have found
3. Write full sentences when giving reasons - don't just write "because they're alternate." The examiner wants you to show that you know alternate angles are equal.

LEVEL 1: STRAIGHT LINES



1.a. Angles on a straight line add up to
(1)

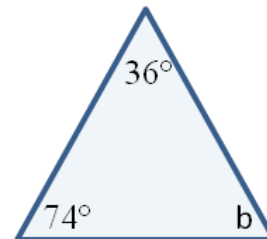


1.b. Angle a = ° (show your working out)
(2)

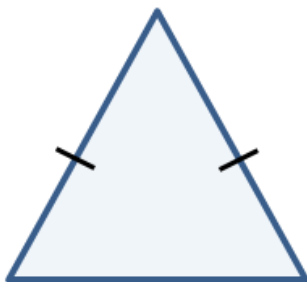
LEVEL 2: TRIANGLES



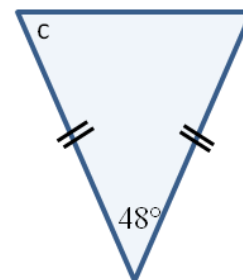
2.a. Angles in a triangle add up to
(1)



2.b. Angle b = ° (show your working out)
(2)

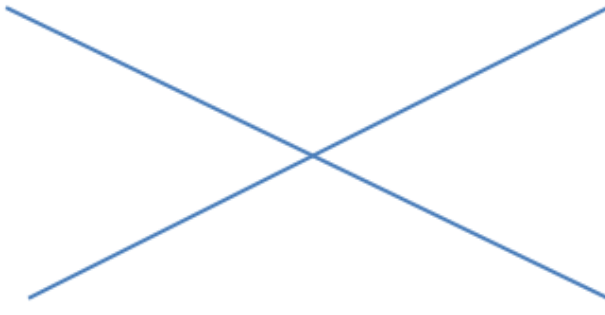


2.c. These markings tell me this is an triangle. The angles are
(2)

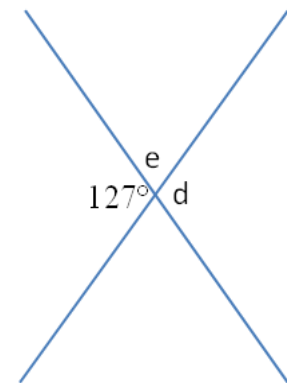


2.d. Angle c = ° (show your working out)
(2)

LEVEL 3: INTERSECTING LINES



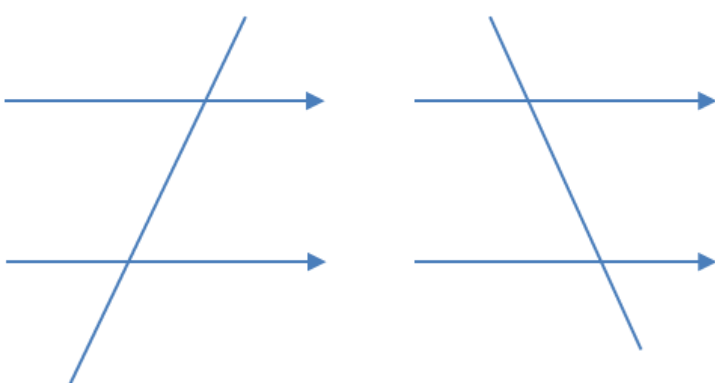
3.a. When two lines cross over the opposite angles will be
(1)



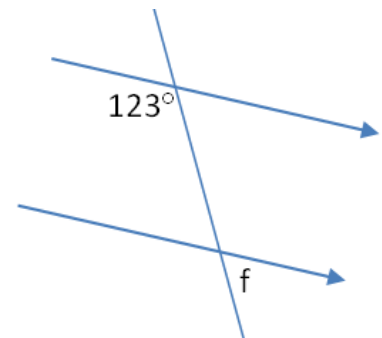
3.b. Angle d = ° Angle e = °
(show your working out)
(2)

LEVEL 4: PARALLEL LINES

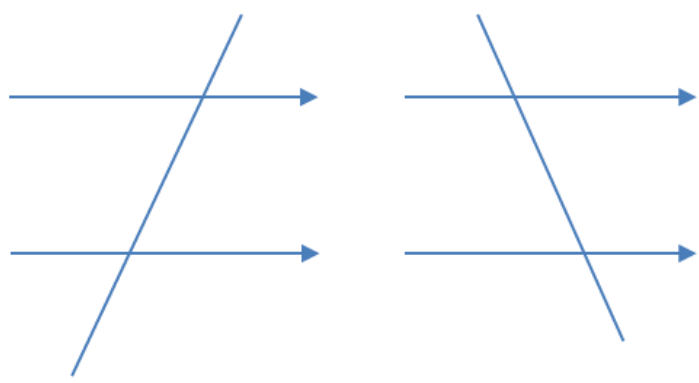
4.a. on a diagram tell me two lines are parallel. (1)



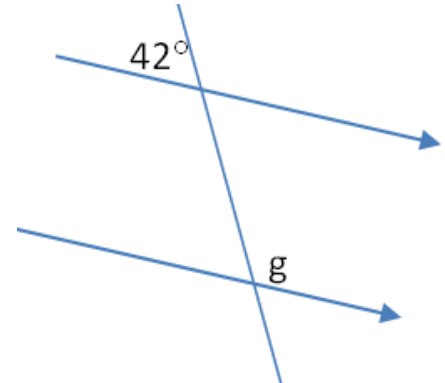
4.b. C..... angles are Look for the shape. ThinkFC
(2)



4.c. Angle f = °
(show your working out)
(1)

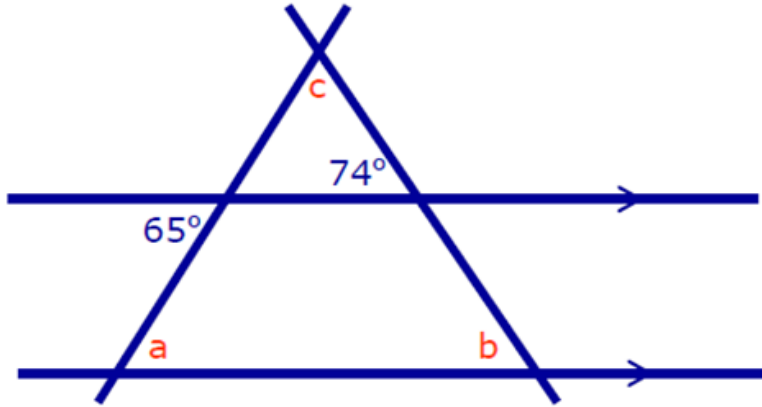


4.d. A..... angles are Look for the shape. Think A to Z.
(2)



4.e. Angle f = °
(show your working out)
(1)

LEVEL 5: SHOWDOWN... use your knowledge gained to answer this question before completing the exam questions.



$a = \dots\dots\dots^\circ$ because

$b = \dots\dots\dots^\circ$ because

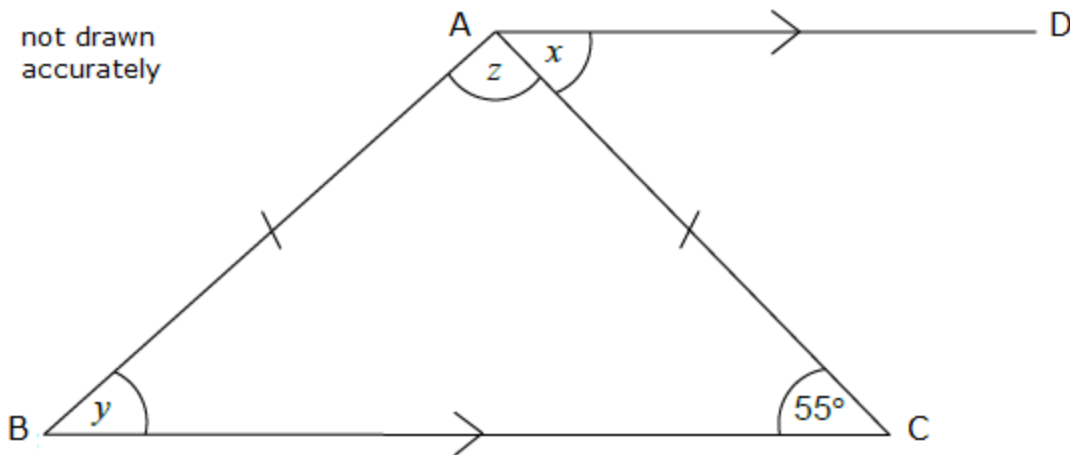
$c = \dots\dots\dots^\circ$ because

(6)

EXAM QUESTIONS

Q1. ABC is an isosceles triangle with $AB = AC$
 BC is parallel to AD and angle $BCA = 55^\circ$

not drawn accurately

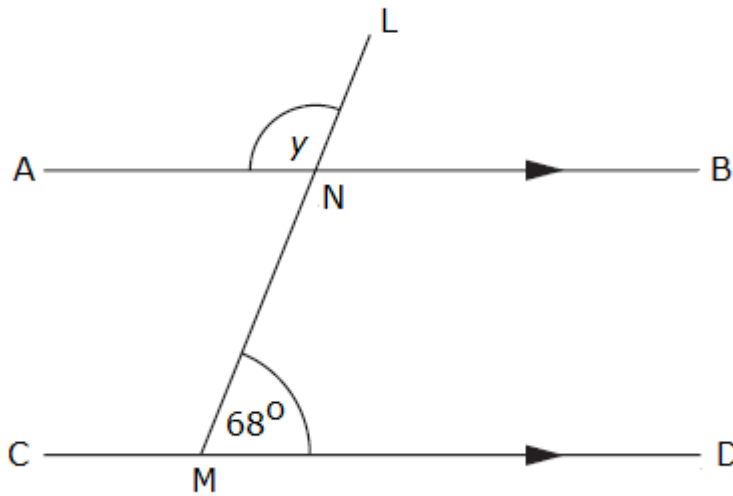


Work out the sizes of the angles marked x , y and z

(4 Marks)

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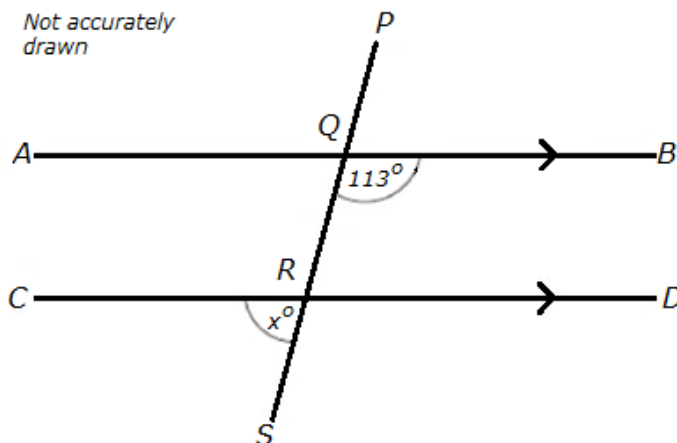
Q2. ANB is parallel to CMD. LNM is a straight line. Angle LMD = 68°



Work out the size of the angle marked y . Give reasons for your answer

(3 Marks)

Q3.

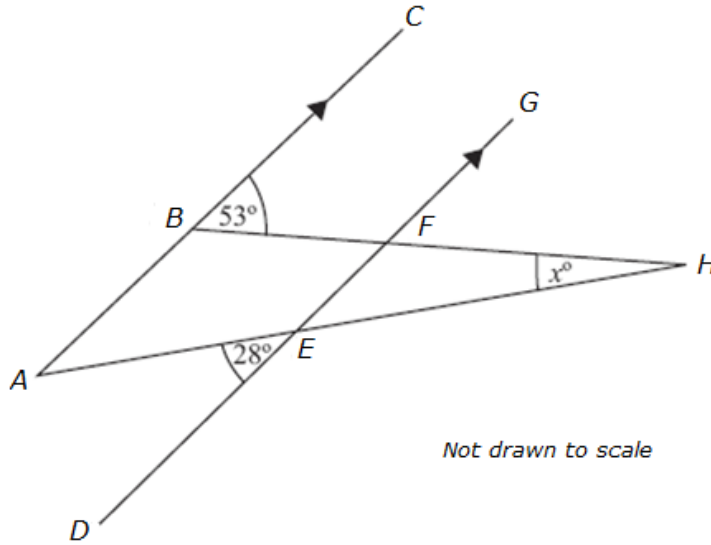


AQB , CRD and $PQRS$ are straight lines. AB is parallel to CD . Angle $BQR = 113^\circ$.

- Work out the value of x .
- Give reasons for your answer

(4 Marks)

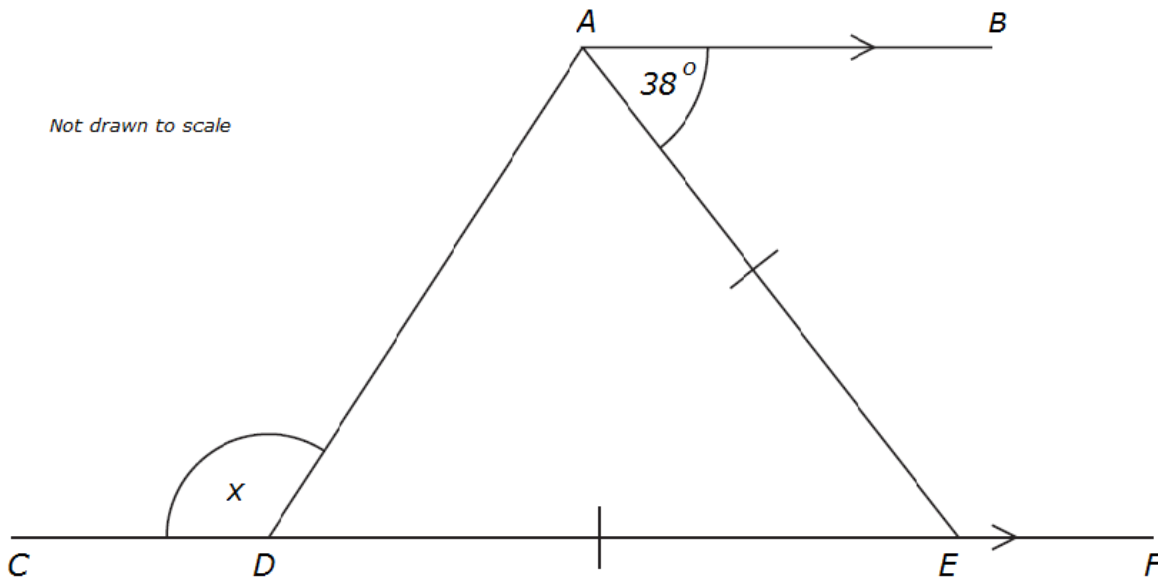
Q4.



ABC and $DEFG$ are parallel. AEH and BFH are straight lines. Work out the size of the angle marked x .

(3 Marks)

Q5.

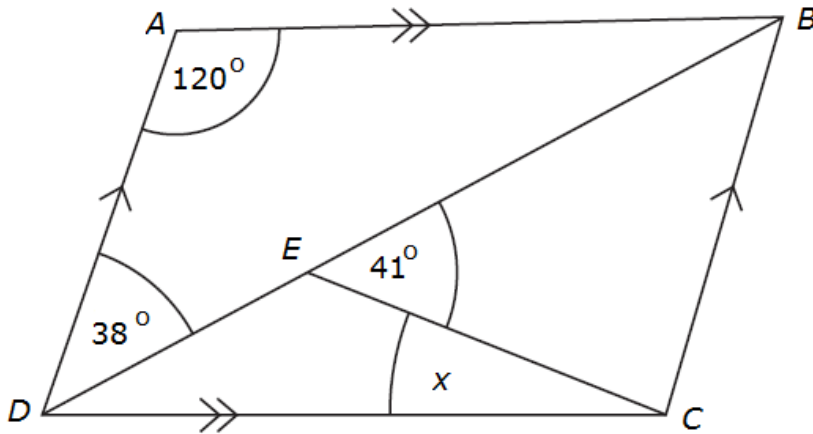


$CDEF$ is a straight line. AB is parallel to CF and $DE = AE$.

Work out the size of the angle marked x . You must give reasons for your answer.

(4 Marks)

Q6.



$ABCD$ is a parallelogram.

Angle $ADB = 38^\circ$

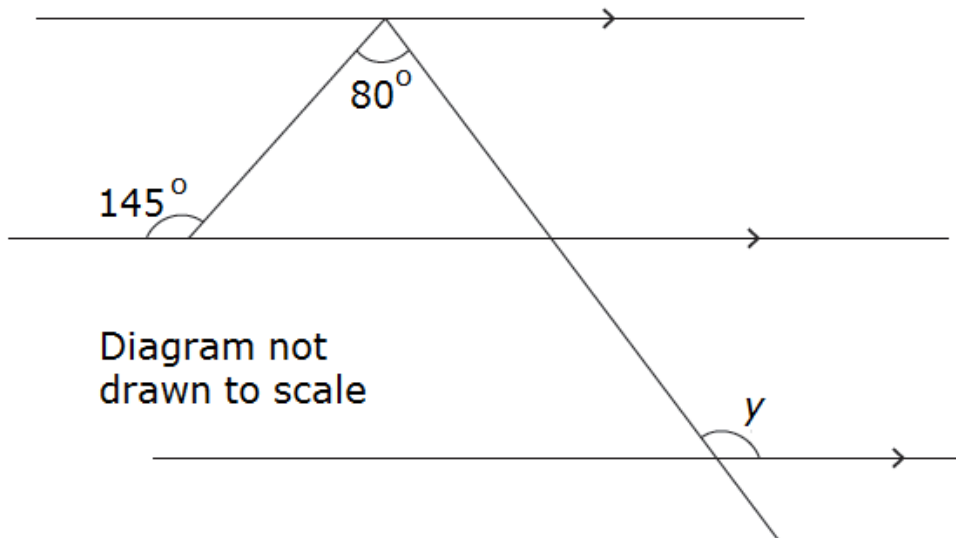
Angle $BEC = 41^\circ$

Angle $DAB = 120^\circ$

Calculate the size of the angle x . You must give reasons for your answer.

(4 Marks)

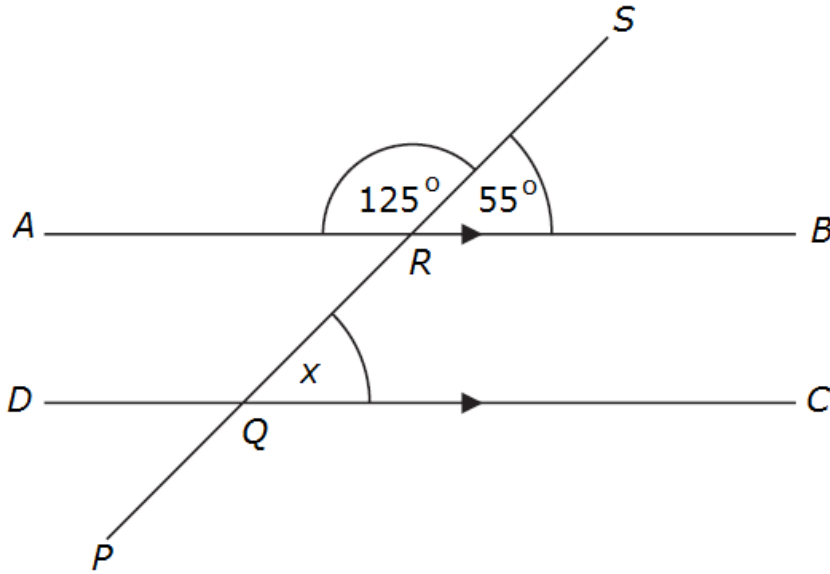
Q7. The diagram shows three parallel paths with a cycle track connecting them.



(2 Marks)

Calculate the size of the angle marked y .

Q8.

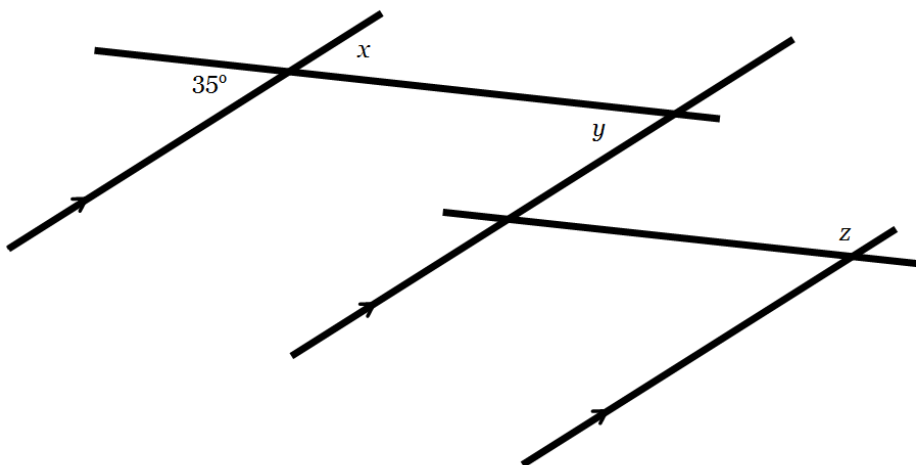


ARB is parallel to DQC . $PQRS$ is a straight line and angle $SRB = 55^\circ$.

- a) Find the size of the angle marked x
- b) Give a reason for your answer.

(2 Marks)

Q9.



Calculate the size of the angles marked x , y and z .

(3 Marks)