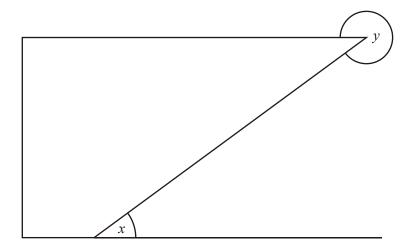
1. The lines in the diagram are straight.



(a) Mark with arrows, (>>), a pair of parallel lines.

(1)

(b) Mark with the letter R, a right angle.

(1)

- (c) What type of angle is shown by the letter
  - (i) x,

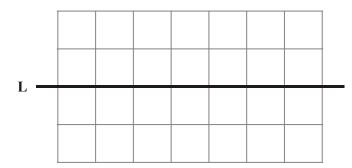
.....

(ii) y.

.....

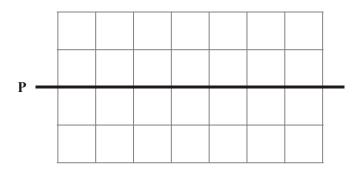
(2) (Total 4 marks)

2. (a) On the grid, draw a line that is parallel to the line  ${\bf L}$ .



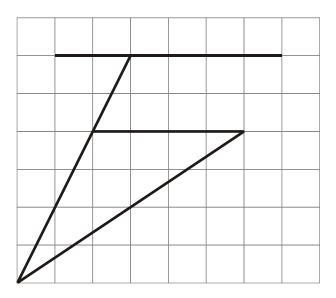
**(1)** 

(b) On the grid, draw a line perpendicular to the line **P**.



(1) (Total 2 marks)

**3.** Here is a diagram drawn on a square grid.



(a) Mark, with arrows (>>), a pair of parallel lines.

(1)

(b) Mark, with the letter A, an acute angle.

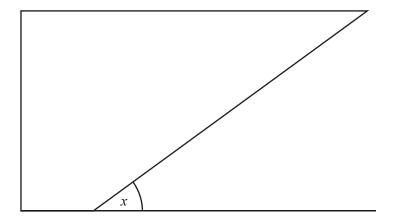
(1)

(c) Mark, with the letter O, an obtuse angle.

(1)

(Total 3 marks)

**4.** The lines in the diagram are straight.



(a) Mark with arrows, (>>), a pair of parallel lines.

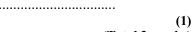
(1)

(b) Mark with the letter R, a right angle.

(1)

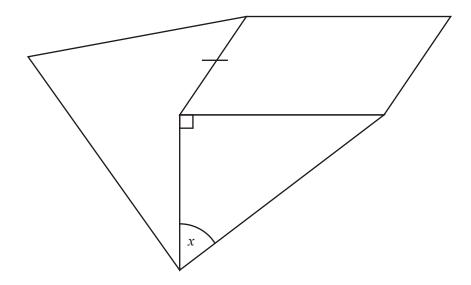
3

(c) What type of angle is shown by the letter x?



(Total 3 marks)

5. The shape is made from a right-angled triangle, a parallelogram and a quadrilateral.



(a) Mark with arrows (») a pair of parallel lines.

(1)

(b) Mark with the letter A an acute angle.

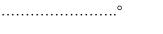
(1)

(c) Mark with the letter R a reflex angle.

(1)

**(1)** 

(d) Measure the size of angle x.



(Total 4 marks)

6.

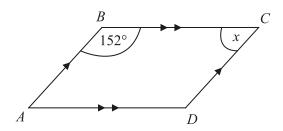


Diagram NOT accurately drawn

ABCD is a parallelogram.

Work out the size of the angle marked x.

 $x = \dots \circ$  (Total 2 marks)

1.	(a)	parallel lines marked  B1	1	
	(b)	right angle marked <i>B1</i>	1	
	(c)	(i) acute B1	1	
		(ii) reflex B1	1	[4]
2.	(a)	B1 for any line parallel to L	1	
	(b)	B1 for any line perpendicular to P	1	[2]
3.	(a)	07 37  B1 for arrows on parallel lines	1	
	(b)	B1 for acute angle marked	1	
	(c)	B1 for obtuse angle marked	1	[3]
4.	(a)	parallel lines marked  B1	1	
	(b) (c)	right angle marked  B1  acute	1	
	(c)	B1	1	[3]
5.	(a)	>>marked B1	1	

## **Edexcel GCSE Maths - Parallel Lines (F)**

- (b) Acute angle marked with A 1

  B1
- (c) Reflex angle marked with R

  B1
- (d) 52  $Bl \pm 2^{\circ}$  [4]

6. 
$$180-152$$
 $28$ 

$$M1 \text{ for } 180-152 \text{ or } x = [360-2(152)] \div 2 \text{ or } 56 \div 2 \text{ seen}$$

$$A1 \text{ cao}$$
[2]

- 1. Many candidates demonstrated their knowledge of parallel lines and right angles but the first two parts still proved far from trivial and, for a substantial number of candidates, exposed misunderstanding of at least one of these basic geometrical concepts. Most candidates gave the answer "acute" for part (c)(i) but, in part (ii), "obtuse" appeared much more often than the correct answer.
- **2.** Candidates understood this question but often reversed their attempts at perpendicular and parallel.
- **3.** Candidates could usually mark the parallel lines but frequently mixed up acute and obtuse angles.
- 4. Although most candidates scored some marks on this question many thought that the sloping line was parallel to the base. The alternate angle to x was often identified as a right angle and x was often said to be a left angle! Many gave a numerical answer to part (c).

- 5. Around 70% of the candidates were able to correctly identify a pair of parallel lines and mark an acute angle with an A. Candidates found less success with marking a reflex angle and accurately measuring the size of angle x, with less than a third scoring marks in parts (c) and (d).
- 6. This question too was well answered with 53% of candidates giving the correct answer of 28°. There were however many candidates who gave the acute angle required the value of 152°, obviously guessing that the answer must be written in the question. A surprising number of candidates seemed to think that there are 380° in a surprising number of candidates seemed to think that there are 380° in a quadrilateral.