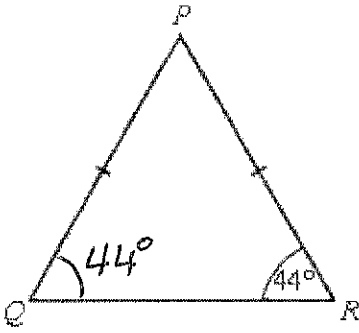


1. (a) Triangle  $PQR$  is isosceles.



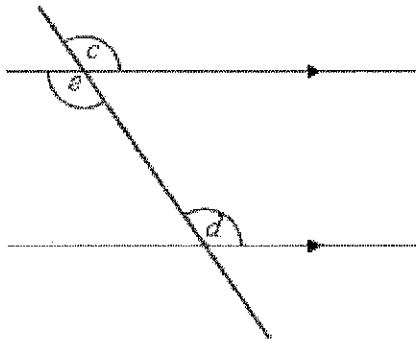
Calculate the size of angle  $P$ .

$44 + 44 = 88^\circ$   
 $180 - 88 = 92^\circ$   
 Answer .....  $92^\circ$  ..... degrees

(2)

(b) The words in this list are used to describe angles.

alternate corresponding exterior interior opposite

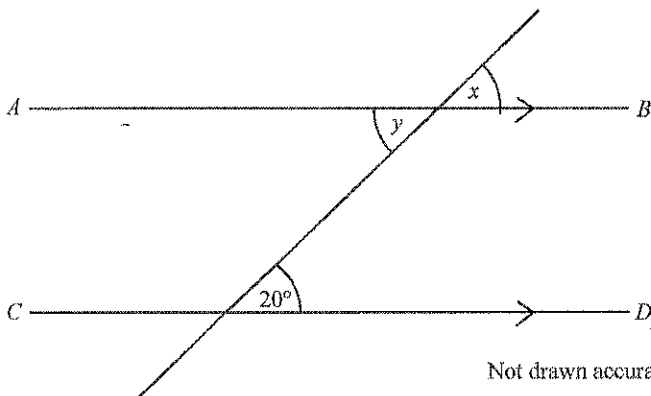


Choose a word from the list to describe each of these pairs of angles.

(i)  $c$  and  $d$  are ..... Corresponding ..... angles (1)

(ii)  $d$  and  $e$  are ..... alternate ..... angles (1)  
 (Total 4 marks)

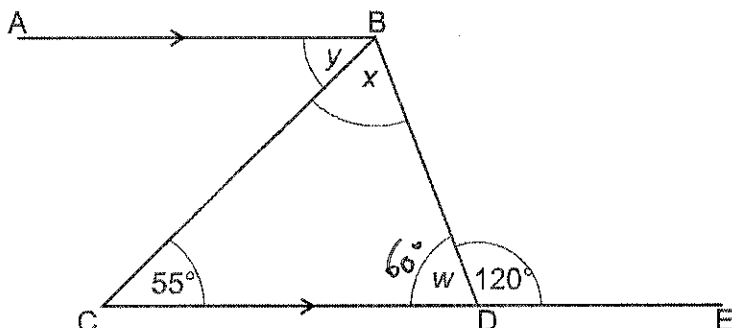
2. The lines  $AB$  and  $CD$  are parallel.



(a) State the value of  $x$ .  
 Answer  $x =$  ..... 20 ..... degrees (1)

(b) Write down the value of  $y$ .  
 Answer  $y =$  ..... 20 ..... degrees (1)  
 (Total 2 marks)

3. In the diagram,  $AB$  is parallel to  $CDE$ .



(a) Work out angle  $w$ .  $w =$  ..... 60 .....  $^\circ$  (1)

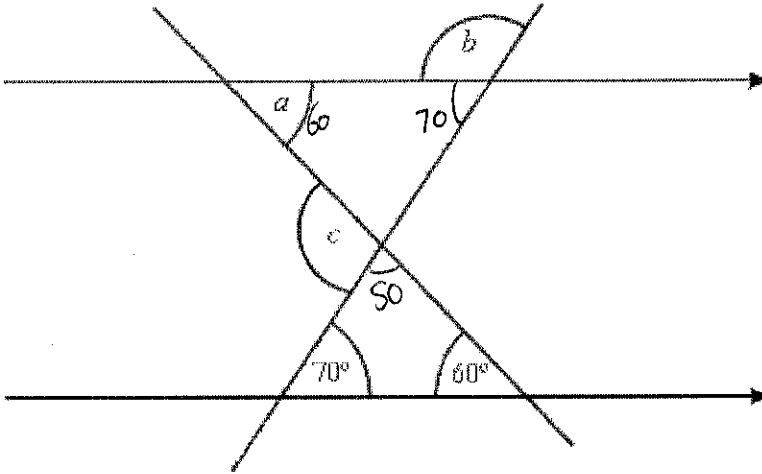
(b) Work out angle  $x$ .  $x =$  ..... 65 .....  $^\circ$  (1)

(b) Work out angle  $y$ .  $y =$  ..... 55 .....  $^\circ$  (1)  
 (Total 3 Marks)

$60$   
 $+ 55$   
 $\hline 115$   
 $180 - 115 = 65$

Angles In Parallel Lines – Exam Style Questions

4. Work out the values of  $a$ ,  $b$  and  $c$ .



$$180 - 50 = 130^\circ$$

$$180 - 70 = 110^\circ$$

Answer  $a = 60$  degrees

$b = 110$  degrees

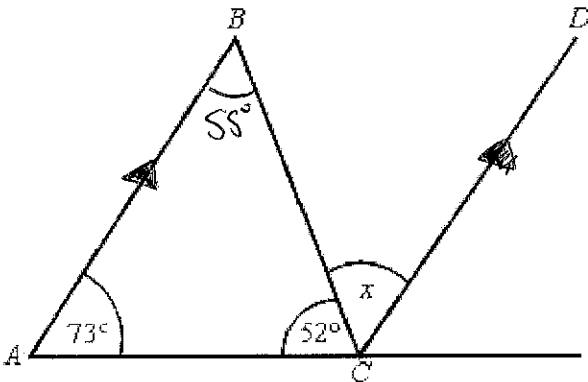
$c = 130$  degrees

(Total 3 marks)

5.  $ABC$  is a triangle.

$CD$  is parallel to  $AB$ .

Find the value of  $\angle BCD$  (marked  $x$  in the diagram).



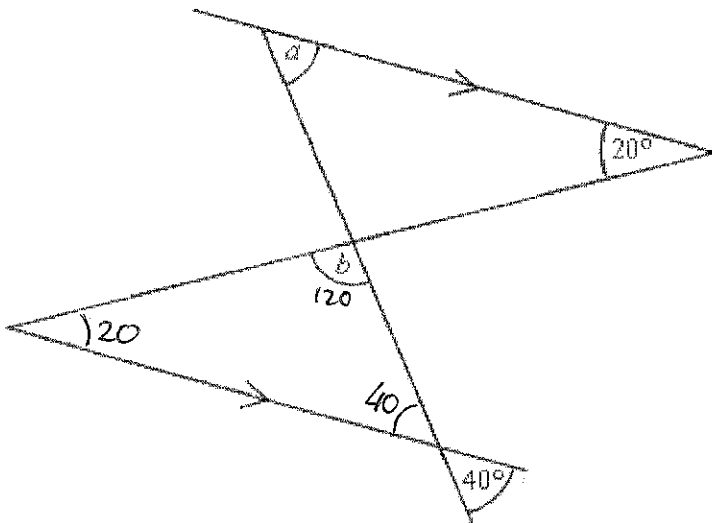
$$73^\circ + 52^\circ = 125^\circ$$

$$180^\circ - 125^\circ = 55^\circ$$

Answer  $55^\circ$  (alternate angle) degrees

(Total 3 marks)

6. (a) Work out the size of angles  $a$  and  $b$ .



$$20 + 40 = 60$$

$$b = 180 - 60 = 120^\circ$$

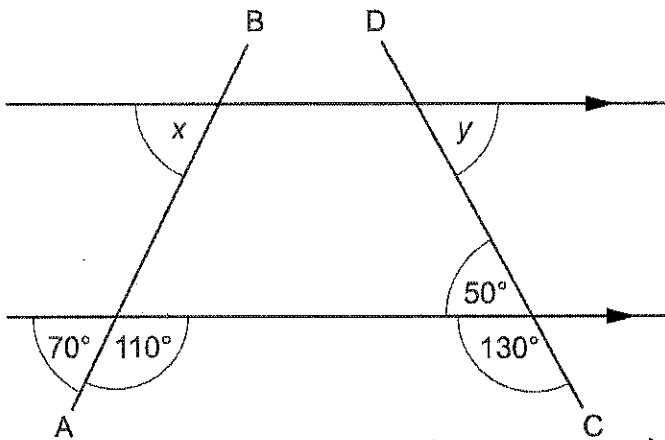
Answer  $a = 40$  degrees

$b = 120$  degrees

(Total 3 marks)

Angles In Parallel Lines – Exam Style Questions

7. The diagram shows the lines AB and CD cutting 2 parallel lines.



(a) Find the size of the angle marked  $x$ .  
Give a reason for your answer.

$x = 70^\circ$  because  
Corresponding (F) angles  
are equal

(2)

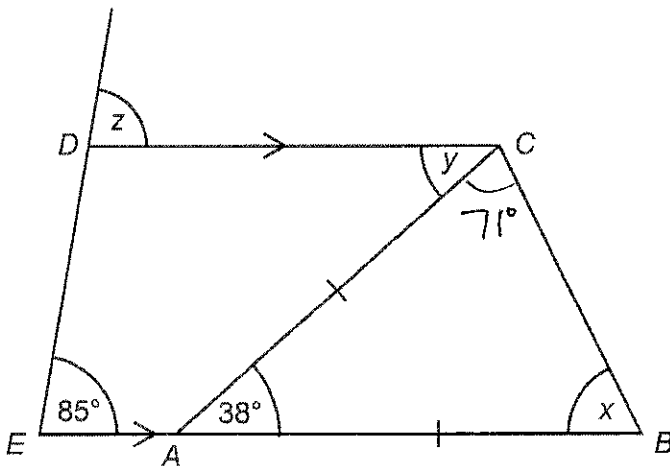
(b) Find the size of the angle marked  $y$ .  
Give a reason for your answer.

$y = 50^\circ$  because alternate (Z) angles are equal

(2)

(Total 4 Marks)

8. In the diagram,  $AB = AC$ .



(a) Work out angle  $x$ .

$180 - 38 = 142$   
 $x = 142 \div 2$   
 $= 71^\circ$

$x = 71^\circ$

(2)

(b)  $EAB$  is a straight line parallel to  $DC$ .

(i) Find angle  $y$ . Give a reason for your answer.

$y = 38^\circ$  because alternate angles are equal.

(2)

(ii) Find angle  $z$ . Give a reason for your answer.

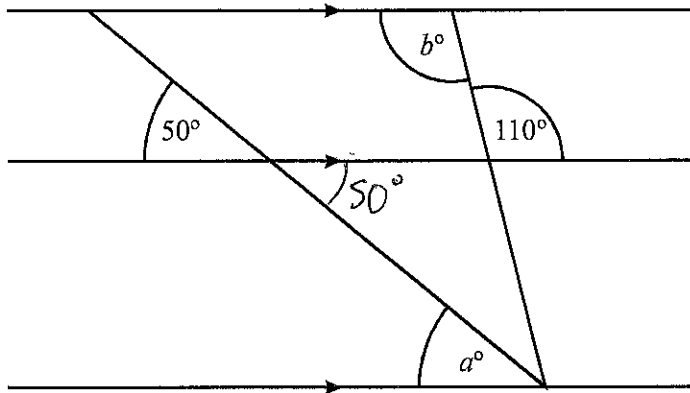
$z = 85^\circ$  because corresponding angles are equal.

(2)

Total (6 Marks)

Angles In Parallel Lines – Exam Style Questions

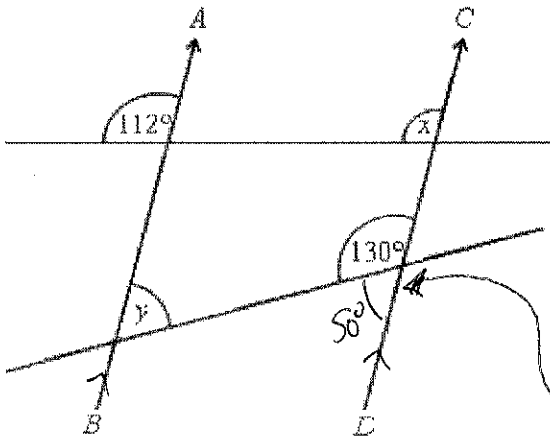
9. Write down the values of  $a$  and  $b$ .



Not drawn accurately

Answer  $a = \dots 50^\circ \dots$  degrees,  $b = \dots 110^\circ \dots$  degrees  
(Total 2 marks)

10. In the diagram,  $AB$  is parallel to  $CD$ .



(a) State the value of  $x$ .  
Give a reason for your answer.

$x = \dots 112 \dots$  degrees  
because corresponding angles are equal.

(2)

(b) Find the value of  $y$ .

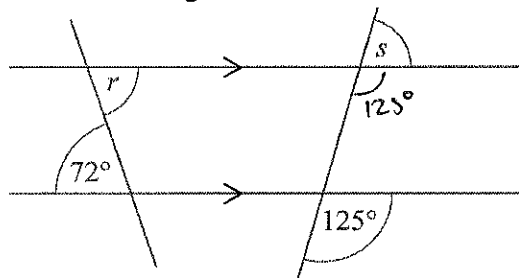
$180 - 130 = 50^\circ$

Answer  $\dots 50^\circ \dots$  degrees

(2)

(Total 4 marks)

11. Work out the sizes of angles  $r$  and  $s$ .



$180 - 125 = 55^\circ$

Answer  $r = \dots 72^\circ \dots$  degrees  $s = \dots 55 \dots$  degrees

(2)

(Total 7 marks)