## 22. The diagram shows a hexagon ABCDEF.

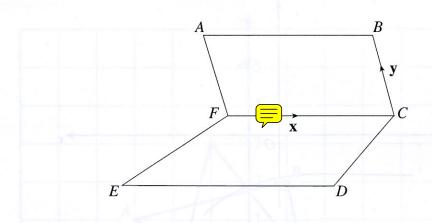


Diagram not drawn to scale.

ABCF is a parallelogram.

$$FC = x$$
,  $CB = y$ ,  $DC = \frac{1}{2}(4x + y)$  and  $EF = \frac{1}{2}(8x + y)$ .

- (a) Express each of the following in terms of x and y. Give your answers in the simplest form.
  - (i) AB

(ii) FB

(iii) ED

χ-= χ (ii)

(b) State the geometrical relationship between FC and ED.

[1]

[2]

17. The diagram shows a cuboid ABCDHGFE with M the mid-point of BF.

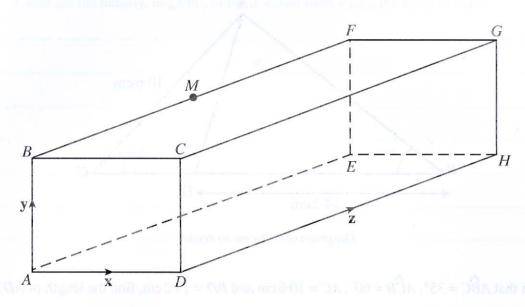


Diagram not drawn to scale.

Given that AD = x, AB = y and DH = z, express each of the following in terms of x, y and z. Give your answers in the simplest form.

(a)	AC		
(b)	AM		
			•••••••••••
/ = \	MII		
(c)	MH		

**20.** The diagram shows a parallelogram *OXYZ*.

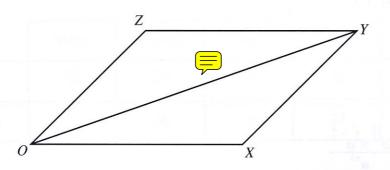


Diagram not drawn to scale.

The point P is on OX such that OP : PX = 1 : 2. The point R is on OY such that OR : RY = 1 : 5.

(a)	Given that $OX = x$ and $OY = y$	, express each	of the following in	terms of x and	у.
					_

(i)	OP		
			(
ii)	OR		A survey of the cost per ultra was calculated that the great v Postowing a process all face store is not be consented to a
		 	Mean
ii)	YX		

(b) Show that $\mathbf{ZX} = 6\mathbf{RP}$ .	
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contant account four trac process concurred the probability that the candidate	
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Fonlacore	
	[3]
(c) Describe fully the geometrical relationship between ZX and RP.	
	(2)
	[2]

21.

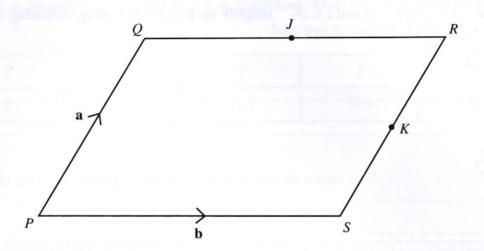


Diagram not drawn to scale.

PQRS is a parallelogram. The mid-point of QR is J and the mid-point of RS is K.

(i)	PR	
(ii)	QJ	
(iii)	PK	
(iv)	QS	
(v)	JK	
		[:

[2]