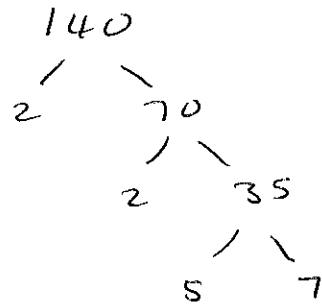




1. Write 140 as the product of its prime factors.

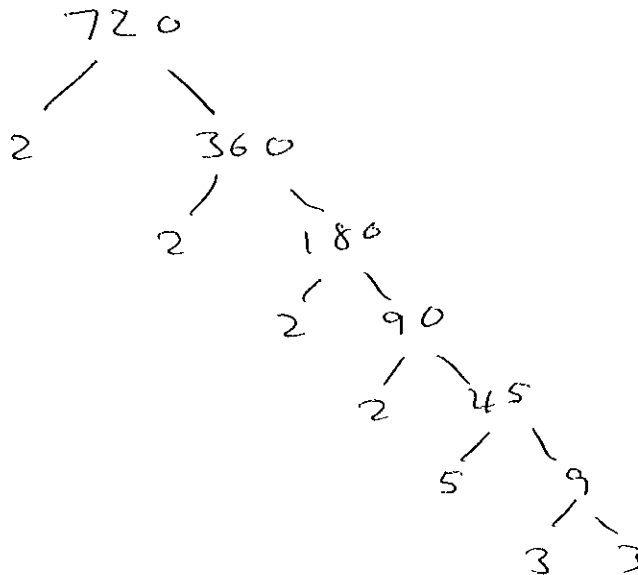


$$2 \times 2 \times 5 \times 7$$

.....

(2 marks)

2. Write 720 as a product of its prime factors.



$$2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5$$

.....

(2 marks)

3. (a) Express the following numbers as products of their prime factors.

(i) 60,

$$2 \times 2 \times 3 \times 5$$

.....

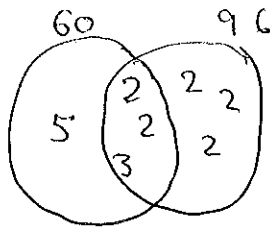
(ii) 96.

$$2 \times 2 \times 2 \times 2 \times 2 \times 3$$

.....

(4)

(b) Find the Highest Common Factor of 60 and 96.



$$2 \times 2 \times 3 = 12$$

$$12$$

.....

(1)

(c) Work out the Lowest Common Multiple of 60 and 96.

$$12 \times 5 \times 2 \times 2 \times 2$$

$$480$$

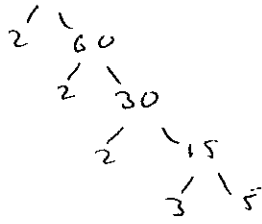
.....

(2)

(7 marks)



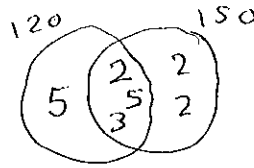
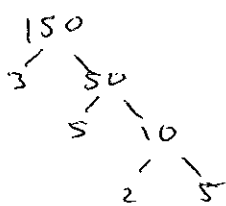
4. (a) Express 120 as the product of powers of its prime factors.



$$\underline{\underline{2 \times 2 \times 2 \times 3 \times 5}}$$

(3)

(b) Find the Lowest Common Multiple of 120 and 150.



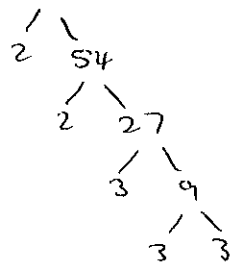
$$5 \times 2 \times 5 \times 3 \times 2 \times 2$$

$$\underline{\underline{600}}$$

(2)

(5 marks)

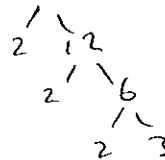
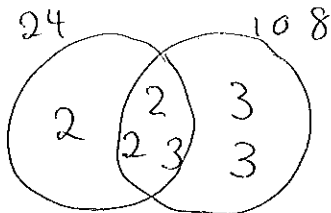
5. (a) Express 108 as the product of powers of its prime factors.



$$\underline{\underline{2 \times 2 \times 3 \times 3 \times 3}}$$

(3)

(b) Find the Highest Common Factor (HCF) of 108 and 24



$$2 \times 2 \times 3$$

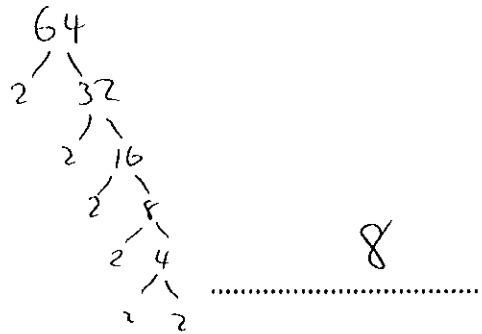
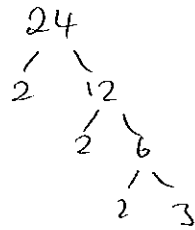
$$\underline{\underline{12}}$$

(1)

(4 marks)



6. (a) Work out the Highest Common Factor (HCF) of 24 and 64



8

(2)

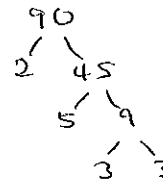
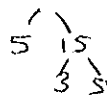
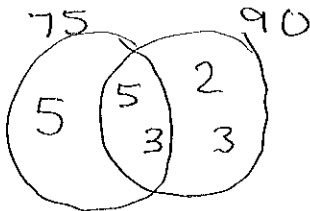
(b) Work out the Lowest Common Multiple (LCM) of 24 and 64

$$8 \times 3 \times 2 \times 2 \times 2$$

192

(2)
(4 marks)

7. (a) Find the Highest Common Factor of 75 and 90.



$$5 \times 3$$

15

(2)

(b) Find the Lowest Common Multiple of 75 and 90.

$$15 \times 2 \times 3 \times 5$$

450

(2)
(4 marks)

8. (a) Express 84 as a product of its prime factors.

$$\underline{2 \times 2 \times 3 \times 7}$$

(3)

(b) Find the Highest Common Factor (HCF) of 84 and 35

$$5 \quad 7$$

$$\underline{7}$$

(2)

(5 marks)

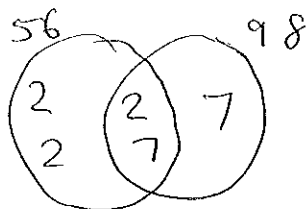
9. (a) Express 56 as the product of its prime factors.

$$\begin{array}{c}
 2 \quad 28 \\
 \quad 2 \quad 14 \\
 \qquad 2 \quad 7
 \end{array}$$

$$\underline{2 \times 2 \times 2 \times 7}$$

(2)

(b) Find the Lowest Common Multiple of 56 and 98



$$\begin{array}{c}
 2 \quad 49 \\
 \quad 7 \quad 7
 \end{array}$$

$$2 \times 2 \times 2 \times 7 \times 7$$

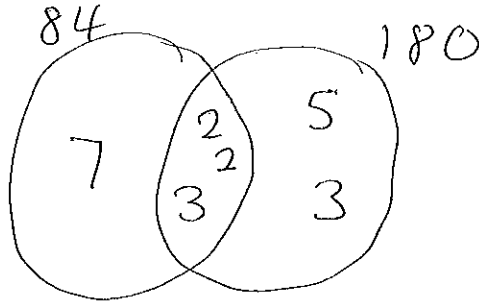
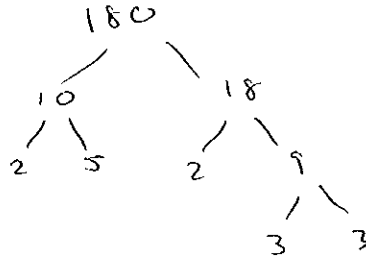
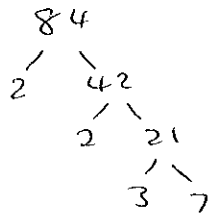
$$\underline{392}$$

(2)

(4 marks)



10. Find the Highest Common Factor (HCF) of 84 and 180

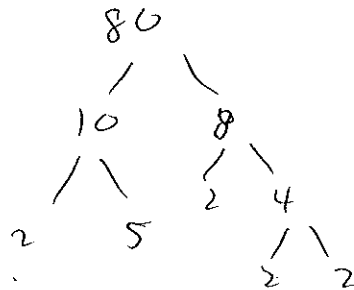
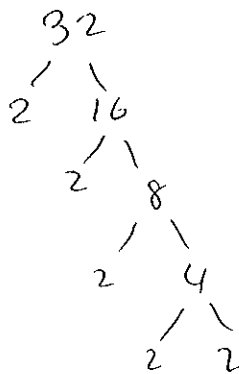


$$2 \times 2 \times 3$$

.....
12

(3 marks)

11. Find the Highest Common Factor (HCF) of 32 and 80



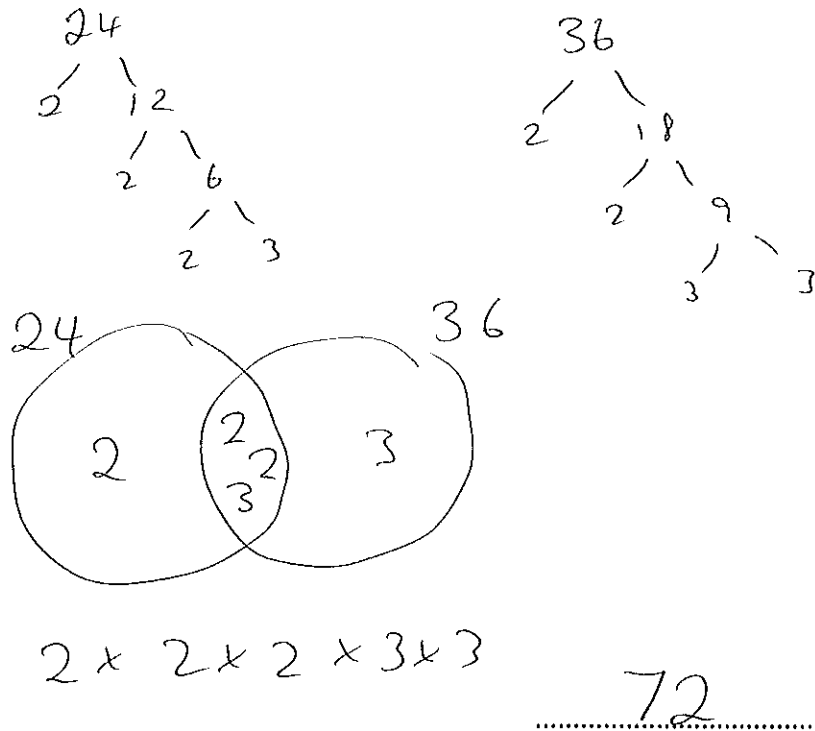
$$2^4 =$$

.....
16

(3 marks)



12. (a) Find the Lowest Common Multiple (LCM) of 24 and 36



(2)

James thinks of two numbers.

He says "The Highest Common Factor (HCF) of my two numbers is 3
The Lowest Common Multiple (LCM) of my two numbers is 45"

(b) Write down two numbers that James could be thinking of.

3 and 45

9 and 15

.....9..... and15.....

(3)

(5 marks)