

Lesson 2

Ratio : GCSE

Non - Calculator Throughout

2.1 Exercise

Question 1

Cancel down the following ratios as far as possible by removing common factors

(i) $6 : 27$

(ii) $8 : 26$

(iii) $5 : 60$

(iv) $15 : 35$

(v) $70 : 7000$

(vi) $12 : 10$

(vii) $66 : 33$

(viii) $20 : 24$

(ix) $18 : 22$

(x) $54 : 63$

(xi) $100 : 108$

(xii) $14 : 70$

Question 2

Patricia receives a Birthday gift of £90.

She decides to split it between

Make-up : Hair Products : Perfume

in the ratio

$$3 : 2 : 5$$

(i) How much does Patricia spend on Make-up ?

(ii) How much does Patricia spend on Hair Products ?

(iii) How much does Patricia spend on Perfume ?

Question 3

Philip has £600 to give away to charity.

He decides to split it between

Homeless : Cancer Research : Food Bank

in the ratio

$$8 : 4 : 3$$

(i) How much does Philip give to the Homeless ?

(ii) How much does Philip give to Cancer Research ?

(iii) How much does Philip give to the Food Bank ?

Question 4

P R I M E S

L E S S

T H A N

1 0 0

	2	3	5	7		
11		13		17	19	
		23			29	
31				37		
41	43			47		
		53			59	
61				67		
71	73				79	
		83			89	
				97		

In the first 100 integers, what is the ratio of

prime : non-prime

You should cancel down this ratio as far as possible by removing any common factors

Question 5

Square
Numbers
Up To
1 0 0

1		4		9		
			16			
			25			
				36		
					49	
			64			
		81				100

In the first 100 integers, what is the ratio of

square : non-square

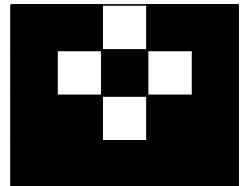
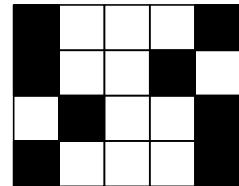
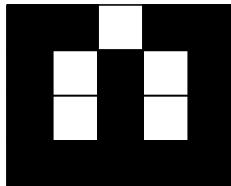
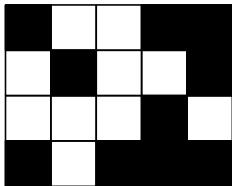
You should cancel down this ratio as far as possible by removing any common factors

Question 6

Underneath each diagram write down the ratio of

black squares : white squares

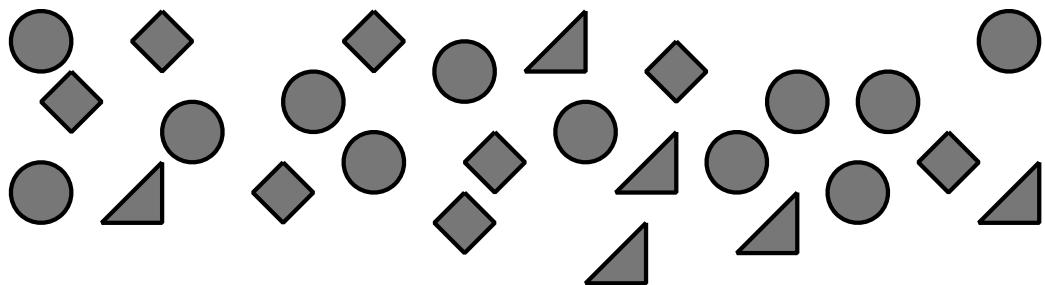
Cancel down each ratio as far as possible by removing any common factors

**Question 7**

Underneath the diagram write down the ratio of

squares : circles : triangles

Cancel down each ratio as far as possible by removing any common factors

**Question 8**

Shade in the squares so that the ratio of

shaded : unshaded

is 3 : 2

Question 9

Cancel down the following ratios as far as possible by removing common factors

(i) $9 : 15 : 21$

(ii) $14 : 20 : 22$

(iii) $70 : 50 : 60$

(iv) $44 : 88 : 60$

(v) $3000 : 4000 : 7000$

(vi) $55 : 15 : 25$

(vii) $42 : 70 : 56$

(viii) $36 : 40 : 18$

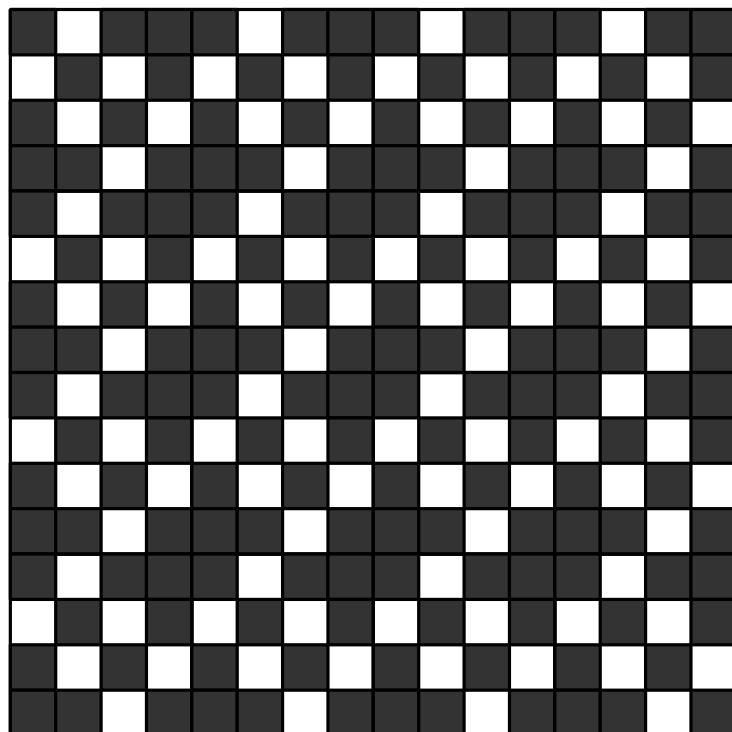
(ix) $16 : 64 : 48$

(x) $360 : 270 : 180$

(xi) $105 : 45 : 60$

(xii) $18 : 45 : 72$

Question 10



What is the ratio of

shaded : *not shaded*

in the above diagram ?