

Test

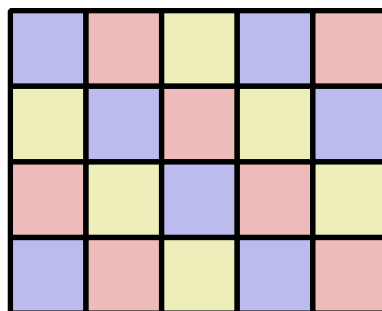


9.1 The Test

Marks available : 50

Question 1

A slice of Battenberg cake of equally sized coloured squares is shown.



Annabella eats all the lilac, Frida all the pink, and Maddie all the yellow.

Did they each get a third of the slice ?

Explain your answer.

[3 marks]

Question 2

(i) List the first six multiples of 20

[1 mark]

(ii) List the first six multiples of 25

[1 mark]

(iii) What is $lcm\{20,25\}$?

[1 mark]

(iv) Showing all the steps, work out $\frac{3}{20} + \frac{4}{25}$

[7 marks]

Question 3

Write the following top heavy fractions as mixed number fractions.

(i) $\frac{23}{4}$

(ii) $\frac{79}{7}$

(iii) $\frac{88}{5}$

(iv) $\frac{517}{5}$

[8 marks]

Question 4

(i) Without using bus stop division explain why 2 is not a factor of 275

[2 marks]

(ii) As 2 is not a factor of 275, list some related numbers also not factors.

[2 marks]

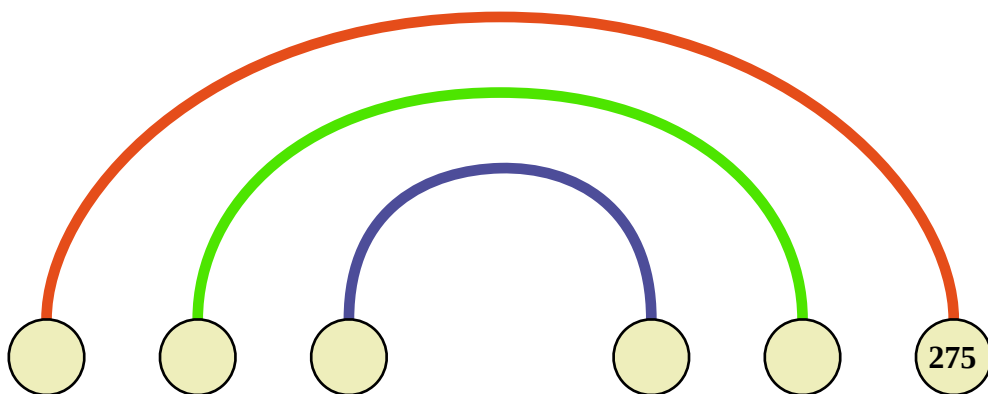
(iii) Without using bus stop division explain why 3 is not a factor of 275

[2 marks]

(iv) As 3 is not a factor of 275, list some related numbers also not factors.

[2 marks]

(v) Complete the factor rainbow for 275



[3 marks]

(v) Write in a list, all the factors of 275

[1 mark]

Question 5

(a) Use the cherry picking method to write as products of primes.

(i) 156

(ii) 650

[3, 3 marks]

(b) Hence simplify $\frac{156}{650}$

[3 marks]

Question 6

Write the following mixed number fractions as top heavy fractions.

(i) $6\frac{2}{3}$

(ii) $14\frac{3}{4}$

(iii) $71\frac{5}{7}$

(iv) $351\frac{1}{3}$

[8 marks]



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In October 2020, Shrewsbury School was voted "**Independent School of the Year 2020**"

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Teachers may obtain detailed worked solutions to the exercises by email from mhh@shrewsbury.org.uk