FRACTIONS (THE FOUR RULES)

[ESTIMATED TIME: 50 minutes]



(+ IGCSE) EXAM QUESTION PRACTICE

1. [2 marks]

Show that
$$\frac{3}{4} + \frac{4}{5} = 1\frac{11}{20}$$

2. [2 marks]

Show that
$$\frac{4}{9} - \frac{1}{6} = \frac{5}{18}$$

3.

[2 marks]

Show that $\frac{3}{8} \div \frac{7}{12} = \frac{9}{14}$

4. [4 marks]

(a) Show that $\frac{7}{8} - \frac{5}{6} = \frac{1}{24}$

(b) Show that
$$\frac{5}{8} \div \frac{7}{12} = 1\frac{1}{14}$$

(2)

Show that $1\frac{2}{3} \div \frac{3}{4} = 2\frac{2}{9}$.

(3)

6. [5 marks]

(a) Show that
$$\frac{4}{5} + \frac{2}{3} = 1\frac{7}{15}$$

(b) Show that $2\frac{1}{4} \div 3\frac{1}{2} = \frac{9}{14}$

(3)

(2)

(a) Show that $\frac{6}{7} \div 4 = \frac{3}{14}$

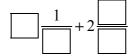
(b) Show that $3\frac{2}{5} - 1\frac{2}{3} = 1\frac{11}{15}$

(2)

(a) Show that $1\frac{1}{5} \times 2\frac{1}{3} = 2\frac{4}{5}$

(3)

(b) Write the numbers 3, 4, 5 and 6 in the boxes to give the greatest possible total. You may write each number only once.



(1)

9.		[4 marks]
	3 -64	[
(a)	$\frac{3}{10}$ of the members of a tennis club are men.	
	$\frac{5}{6}$ of these men are right-handed.	
	Work out the fraction of the members of the tennis club who are right-handed men.	
	(2)	
(b)	$\frac{7}{12}$ of the members of a badminton club are women.	
	$\frac{3}{8}$ of the members of the badminton club wear glasses.	
	Work out the smallest possible number of members of the badminton club.	
	(2)	
10.		[5 marks]
(a)	Nikos drinks $\frac{2}{3}$ of a litre of orange juice each day. How many litres does Nikos drink in 5 days? Give your answer as a mixed number.	
	(2)	
(b)	(i) Find the lowest common multiple of 4 and 6.	
(0)	(i) That the lowest common maniple of Tana o.	
	(ii) Work out $3\frac{3}{4} + 2\frac{5}{6}$. Give your answer as a mixed number. You must show all your working.	
	(3)	

11. [2 marks

Lethna worked out $\frac{2}{5} + \frac{1}{2}$

She wrote:

$$\frac{2}{5} + \frac{1}{2} = \frac{2}{10} + \frac{1}{10} = \frac{3}{10}$$

The answer of $\frac{3}{10}$ is wrong.

(a) Describe one mistake that Lethna made.

(1)

Dave worked out $1\frac{1}{2} \times 5\frac{1}{3}$

He wrote:

$$1 \times 5 = 5$$
 and $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

so
$$1\frac{1}{2} \times 5\frac{1}{3} = 5\frac{1}{6}$$

The answer of $5\frac{1}{6}$ is wrong.

(b) Describe one mistake that Dave made.

(1)

(a) Show that
$$\frac{3}{10} + \frac{2}{15} = \frac{13}{30}$$

(b) Show that
$$2\frac{5}{8} \div 1\frac{1}{6} = 2\frac{1}{4}$$

Show that
$$2\frac{1}{4} \times 2\frac{2}{3} = 6$$

14. [3 marks]

Show that
$$7\frac{1}{2} - 4\frac{2}{3} = 2\frac{5}{6}$$

15.

[3 marks]

Show that

$$1\frac{1}{2} \div 1\frac{1}{4} = 1\frac{1}{5}$$

16. [3 marks]

Find $\frac{1}{3} - \left(\frac{1}{3} \times \frac{1}{3}\right) + \left(\frac{1}{3} \div \frac{1}{3}\right)$

Show clear working out.

17. [4 marks]

Show that
$$\left(3\frac{3}{4} - 2\frac{2}{3}\right) \times 1\frac{1}{2} = 1\frac{5}{8}$$