Practice questions for the workshop

Use your notes to work on these questions. The questions relate to the Units in books 1a and the first part of book 1b. Answers available on separate sheet

Unit 1: four functions with whole numbers

1) 51×63 2) $451 + 96 + 21$ 3) 175×93

4) $178 \div 16$ 5) $1760 \div 22$ 6) $1027 \div 8$

See the 'problems in words' sheet for some more examples!

Unit 2: factors, multiples, HCF and LCM

1) Write down the first 9 prime numbers

2) Find the Lowest Common Multiple of 8 and 12

3) Find the Highest Common Factor of 16 and 24

4) Find the Lowest Common Multiple of 14 and 21

5) Find the Highest Common Factor of 34 and 51

6) Find all the factors of 90

7) Find all the factors of 72

8) Find the prime factors of 42

9) Find the prime factors of 144

10) Write a sentence explaining what a prime number is. Write another sentence explaining what a prime factor is. How are the factors of a number different from the prime factors?

Unit 4 Decimal Arithmetic

1) What is $12.56 + 6 + 3.4$?

2) Try these multiplications

a) 12.5×0.45 b) 0.175×45.5 c) 1.7×3.4 d) 412×0.15

3) Try these divisions

a) $1.76 \div 2.2$ b) $1.024 \div 0.0032$ c) $150 \div 5.5$

Unit 3: Fractions!

After you have answered all of these questions, write your own notes to yourself on how *you* carry out each procedure. Try to get your notes on one side of paper including examples.

1) Finding equivalents (this really helps with adding and subtracting)

a) $\frac{5}{7}=\frac{?}{21}$ b) $\frac{2}{?}=\frac{4}{28}$ c) $\frac{3}{4}=\frac{?}{12}$ d) $\frac{8}{16}=\frac{?}{2}$

e) $\frac{12}{9}=\frac{?}{3}$ f) $\frac{1}{2}=\frac{?}{10}$ g) $\frac{2}{3}=\frac{?}{18}$ h) $\frac{5}{4}=\frac{?}{12}$

2) Changing between mixed and top heavy numbers…

a) $2\frac{3}{4}=$ b) $1\frac{3}{8}=$ c) $7\frac{1}{2}=$ d) $1\frac{3}{7}=$

e) $3\frac{1}{7}=$ f) $5\frac{4}{9}=$ g) $3\frac{3}{12}=$ h) $1\frac{2}{3}=$

3) Changing back again to mixed numbers: give answer in 'lowest terms'

a) $\frac{21}{4}$ b) $\frac{16}{12}$ c) $\frac{24}{30}$ d) $\frac{15}{10}$

e) $\frac{10}{3}$ f) $\frac{63}{49}$ g) $\frac{8}{3}$ h) $\frac{36}{27}$

4) Multiplying and dividing fractions

a) $\frac{3}{4}\times\frac{2}{9}$ b) $\frac{1}{2}\times 2\frac{1}{4}$ c) $2\frac{1}{4}\times 1\frac{1}{3}$ d) $\frac{1}{2}\times\frac{3}{2}$

e) $\frac{2}{3}\div\frac{9}{4}$ f) $1\frac{1}{2}\div\frac{3}{4}$ g) $2\frac{5}{6}\div 3\frac{7}{9}$ h) $7\frac{1}{2}\div\frac{1}{2}$

5) Adding and subtracting fractions

a) $\frac{2}{5}+\frac{1}{5}$ b) $\frac{3}{4}-\frac{1}{2}$ c) $2\frac{1}{2}+1\frac{3}{4}+\frac{1}{4}$ d) $2\frac{5}{8}+1\frac{1}{12}$

e) $1\frac{1}{2}+\frac{3}{4}$ f) $2\frac{2}{3}-\frac{5}{6}$ g) $3\frac{1}{4}-2\frac{2}{3}$ h) $\frac{2}{3}+\frac{1}{4}$