Miss Robinson's Maths Group Homework

Spring Week 2

Remember to set your work out clearly and write in pencil.

Please try all questions.

Please DO NOT print any of this homework. Write answers directly into your Homework Book and include any working out.

Arithmetic Warm Up

LI: to be able to multiply and divide integers by 10, 100 and 1000

This is revision from last year and I am sure that many of you remember these lessons.

Example: 125 x 100 = 12 500 *Each digit has moved 2 places to the left.*

2 794 ÷ 10 = 279·4 *Each digit has moved 1 place to the right.*

Arithmetic Warm Up

LI: to be able to multiply and divide integers by 10, 100 and 1000

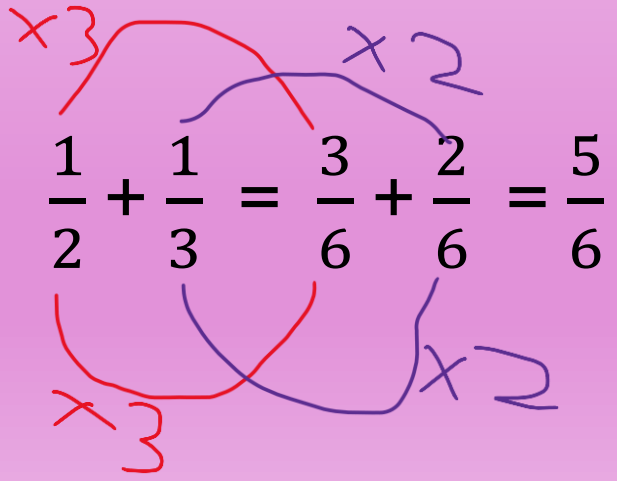
1. 362 x 100 =
2. 254 x 10 =
3. 3 901÷ 100 =
4. 15·02x 10 =
5. 12 587÷ 100 =
6. 22 358 ÷ 1000 =
7. 19·5 x 10 =
8. 2·6 x 1000 =
9. 64 501 ÷ 1000 =
10. 9 024÷ 100 =
11. 16·9 x 100 =
12. 567·18 ÷ 100 =
13. 0·97 x 10 =
14. 2·66 x 100 =
15. 127·4 ÷ 100 =
16. 52·73 ÷ 10 =

LI: to be able to add fractions with unlike denominators

From last term's lessons, remember that fractions must have the same denominator to be able to add and subtract them.

So, $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$

The denominator stays the say but you add the numerators.



Remember that 6 is the *lowest common multiple* of 2 and 3.

LI: to be able to add fractions with unlike denominators

① $\frac{1}{4}+\frac{1}{2}$	② $\frac{3}{4}+\frac{3}{8}$	③ $\frac{2}{4}+\frac{5}{6}$
④ $\frac{3}{6}+\frac{1}{3}$	⑤ $\frac{8}{3}+\frac{4}{5}$	⑥ $\frac{2}{5}+\frac{5}{10}$
⑦ $\frac{2}{3}+\frac{1}{2}$	⑧ $\frac{4}{6}+\frac{5}{8}$	⑨ $\frac{3}{9}+\frac{1}{3}$
⑩ $\frac{6}{4}+\frac{5}{12}$	⑪ $\frac{4}{6}+\frac{2}{9}$	⑫ $\frac{9}{2}+\frac{2}{8}$

1) $\frac{3}{4}+\frac{7}{12}=$

2) $\frac{5}{6}+\frac{1}{3}=$

3) $\frac{6}{7}+\frac{5}{21}=$

4) $\frac{7}{8}+\frac{5}{8}=$

5) $\frac{3}{5}+\frac{11}{20}=$

6) $\frac{7}{10}+\frac{23}{50}=$

7) $\frac{2}{9}+\frac{13}{45}=$

8) $\frac{17}{24}+\frac{5}{6}=$

9) $\frac{17}{20}+\frac{13}{20}=$

10) $\frac{4}{7}+\frac{22}{35}=$

11) $\frac{11}{18}+\frac{2}{3}=$

12) $\frac{3}{4}+\frac{23}{36}=$

Look carefully. The lowest common multiple is often right before your eyes!

LI: to be able to put ratios in their simplest form

Remember that ratios are like fractions.

With fractions, you must do to the numerator exactly what you do to the denominator.
With ratios, you do to the lest exactly what you do to the right.

Example: 24:16

What is the largest number which is a factor of 24 and 16?

8 is the highest common factor.

24:16 = 3:2

LI: to be able to put ratios in their simplest form

1) 12:15 =
2) 9:12 =
3) 16:12 =
4) 7:21 =
5) 14:28 =
6) 8:24 =
7) 6:48 =
8) 18:45 =

LI: to be able to calculate ratios

1) The ratio of red counters to yellow counters is 3:1. If there are 12 counters in total, how many are there of each colour?
2) I need to make 16L of purple paint. Purple paint is made by mixing red and blue paint in the ratio of 2:6. How much red and purple must I buy?
3) There are 48 biscuits in a box. There are plain, chocolate and toffee biscuits in the ratio P:C:T 2:2:4. How many are there of each type of biscuit in the box?

LI: to be able to calculate ratios

For every 1 adult on a school trip, there are 6 children.

adults 

children 

There are 8 adults on the trip.

How many children are there?

For every 1 apple in a box, there are 4 oranges.

apples 

oranges 

a) If there are 10 apples in the box, how many oranges are there?

b) If there are 12 oranges in the box, how many apples are there?

For every 2 blue balloons, there are 3 green balloons.
There are 20 balloons altogether.

How many blue balloons are there?

The ratio of 20p coins to 5p coins in a money box is 5 : 2

There are fifteen 20p coins.

How much money is in the box?

Amir has a box of counters.

For every 5 red counters in the box, there are 2 green counters.

Amir removes 21 red counters.

There are now the same number of red and green counters in the box.

How many green counters are in the box?

Show all your workings.

LI: to be able to calculate ratios

For every **3m** of fence I need **4** fence panels.

The fence will be **15m** long.

How many fence panels will I need?

I am decorating a cake with fruit.

I use **2** raspberries for every **3** strawberries.

Altogether I put **30** berries on the cake.

How many **raspberries** did I use?

Remember to bring any questions about the work into Monday's lesson.

Have a wonderful weekend!