

Year 6 - Spring Part 1 - Maths homework

Please refer to the booklet: 'How To Learn Your Times Table Facts,' which is full of ideas of how to learn them. It is available on our website.

Adding and subtracting fractions

When adding and subtracting fractions, we only add the numerators together - not the denominators:

eg. $1/5 + 2/5 + 4/5 = 7/5$

Complete the following sums:

- 1) $1/3 + 2/3 = ?$
- 2) $3/3 - 2/3 = ?$
- 3) $1/4 + 3/4 = ?$
- 4) $6/7 - 3/7 = ?$
- 5) $2/5 + 4/5 = ?$
- 6) $5/10 - 3/10 = ?$
- 7) $3/10 + 8/10 = ?$
- 8) $12/15 - 7/15 = ?$

Remember - if the denominator is not the same for all of the fractions, you must first convert them all to a common denominator.

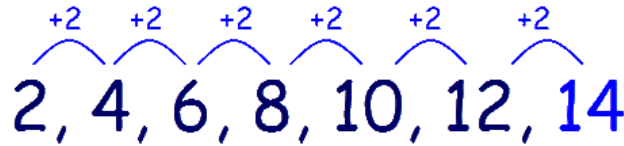
eg. $1/3 + 1/4 = 4/12 + 3/12 = 7/12$

Complete the following sums:

- 9) $3/6 + 2/4 = ?$
- 10) $3/5 - 5/10 = ?$
- 11) $3/5 + 6/10 = ?$
- 12) $5/7 - 2/3 = ?$

Describing and extending number sequences

Example:



Find the next six numbers of in these sequences

- a) Start at 8 and increase by 3 each time.
- b) Start at 14 and increase by 2.5 each time.
- c) Start at 105 and decrease by 10 each time.
- d) Start at 10 and increase by $2\frac{1}{4}$ each time.
- e) Start at 800 and divide by 2 each time.



Describing number sequences.

Example 1

2 3 6 11 ? ? ?

The amount you add increases by 2 each time.

2 3 6 11 19 28 39

Example 2

4 5 7 11 ? ? ?

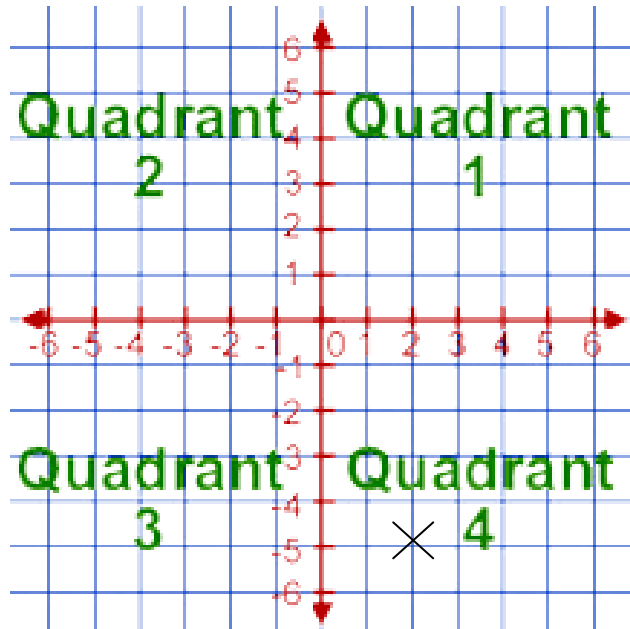
The amount you add doubles each time. The rule is $\times 2, -3$

4 5 7 11 19 35 67

Describe and complete the sequences with the missing numbers:

- 2, 5, 8, 11, 14, ?, ?, ?
- 1, 2, 4, 8, 16, ? ? ?
- 3.8, 7.2, 14, 27.6, ?, ?, ?
- 87, 75, 63, 51, 39, ?, ?, ?
- 0.6, 1.4, 1.1, 1.9, 1.6, 2.4, ?, ?, ?, ?

Draw and label positions on a coordinate grid (all four quadrants).



Example: $(2, -5)$ is marked above.

Now you try some.

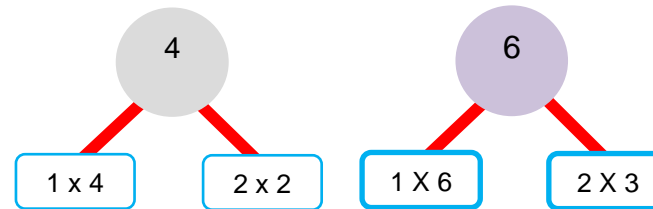


Common Factors

Example:

To find the common factors of 4 and 6.

First, find the factor pairs for 4 and 6 and the compare.



So, the common factors are 1 and 2.

Can you find the common factors of the following numbers?

18 and 24, 27 and 6, 30 and 20, 6 and 12.

Know by heart facts for all multiplication tables up to 12×12 .

Example: If I now know my 4s I can double to find the 8s. If I know my 6s by doubling I know my 12s

$$4 \times 2 = 8$$

So: $4 \times 4 = 16$

$$4 \times 8 = 32$$

Suggestions:

Stick up facts around your house in places you look regularly, e.g. near your bed.

