

## Year 3 Reasoning & Problem-Solving Examples

Are these fractions written in **ascending** or **descending** order?

What does ascending and descending mean?



$$\frac{1}{3} \quad \frac{1}{5} \quad \frac{1}{9} \quad \frac{1}{12}$$

Explain how you know!

**True or False?**

All of the numbers in the 4 times table are even.

There are no numbers in the 5 times table that are in the 4 times table.



Which is the odd one out?

$$4 + 4$$



Millie has £33 in her piggy bank. She has saved £3 each week.



I have been saving for 12 weeks.

Is Millie correct? Prove it!

Investigate!

When 9 and 4 are added together in the ones column, the ones digit in the answer will always be 3.



What other two digits would always give a 3 in the ones column when added?

**Convince Me.**

There are chickens and cows in the farmyard.



There are 24 legs altogether.

There could be 3 cows and 6 chickens.

Jane thinks she has proved that  $\frac{3}{5}$  is greater than  $\frac{4}{5}$  using folded strips of paper.



Can you spot her mistakes?



Each row has no more than 10 counters in it.  
 .... Shows where a counter OR counters are missing.

H	T	O

What numbers could be represented?  
 Find all possible solutions!